DOCUMENT RESUME

ED 424 102 SE 061 815

TITLE	Western Canadian Protocol for Collaboration in Basic Education Common Curriculum Framework. Grade 10 to Grade 12 Mathematics Resources: Annotated Bibliography.
INSTITUTION	Alberta Dept. of Education, Edmonton.
ISBN	ISBN-0-7732-9911-4
PUB DATE	1998-05-00
NOTE	73p.; Print is very small.
AVAILABLE FROM	Alberta Deprtment of Education, Devonian Building, West Tower, 11160 Jasper Avenue, Edmonton, Alberta, T5K 0L2 Canada; Web site: http://www.ednet.edc.gov.ab.ca/wp
PUB TYPE	Reference Materials - Bibliographies (131)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Educational Resources; Foreign Countries; Grade 10; Grade 11; Grade 12; High Schools; *Instructional Materials; Mathematics Curriculum; *Mathematics Education
IDENTIFIERS	*Canada (West)

ABSTRACT

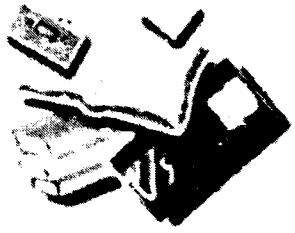
This annotated bibliography identifies the English language resources endorsed by all Western Canadian Protocol (WCP) jurisdictions implementing The Common Curriculum Framework for K-12 Mathematics Grade 10 to Grade 12. The WCP resources in this bibliography were selected through a collaborative review process based on their high level of fidelity with the rational, philosophical, mathematical processes and outcome of The Common Curriculum Framework for K-12 Mathematics Grade 10 to Grade 12. (ASK)

WESTERN CANADIAN PROTOCOL

COMMON CURRICULUM FRAMEWORK

Grade 10 to Grade 12 Mathematics Resources

Annotated Bibliography



May 1998

Western Canadian Protocol for Collaboration in Basic Education Common Curriculum Framework

Grade 10 to Grade 12 Mathematics Resources

Annotated Bibliography

MAY 1998

ALBERTA EDUCATION CATALOGUING IN PUBLICATION DATA

Western Canadian Protocol for collaboration in basic education, common curriculum framework : grade 10 to grade 12 mathematics resources, annotated bibliography.

Also available at: http://ednet.edc.gov.ab.ca/wp
ISBN 0–7732–9911–4

1. Mathematics — Study and teaching (Secondary) — Alberta — Bibliography. 2. Mathematics — Study and teaching (Secondary) — British Columbia — Bibliography. 3. Mathematics — Study and teaching (Secondary) — Manitoba — Bibliography. 4. Mathematics — Study and teaching (Secondary) — Saskatchewan — Bibliography. 5. Mathematics — Study and teaching (Secondary) — Northwest Territories — Bibliography. 6. Mathematics — Study and teaching (Secondary) — Yukon Territory — Bibliography. I. Title. II. Title: Grade 10 to grade 12 mathematics resources, annotated bibliography.

QA14.C2.K51 1998 372.7

TABLE OF CONTENTS

INTRODUCTION

Background

The Western Canadian Protocol for Collaboration in Basic Education Kindergarten to Grade 12 was signed in December 1993 by the ministers of education from Manitoba, Saskatchewan, Alberta, British Columbia, Yukon Territory and the Northwest Territories. *The Common Curriculum Framework for K–12 Mathematics*, for Kindergarten to Grade 9, was released in June 1995 and Grade 10 to Grade 12 was released in June 1996.

Foreword

This annotated bibliography identifies the English language resources endorsed by all Western Canadian Protocol (WCP) jurisdictions implementing *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12* (Common Curriculum Framework).

Resources in this annotated bibliography were selected, through a collaborative review process, based on their high level of fidelity with the rationale, philosophy, mathematical processes and outcomes of *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12.* The resources have undergone an intensive review and were found to be the most suitable of those submitted.

During this review, breadth resources were identified for Pure Mathematics 10 and Pure Mathematics 11, while depth and teacher resources were identified for selected parts of grades 10, 11 and 12 pure and applied mathematics.

Acknowledgments

The Western Canadian Protocol jurisdictions would like to thank everyone involved in the review and selection processes to identify the best mathematics student and teacher resources for the Grade 10 to Grade 12 framework. In 1998, 25 teachers were selected by the participating jurisdictions to review over 200 items received in response to the invitation to publishers, producers and distributors for resource submissions.

Appreciation is also extended to all the school systems in the WCP jurisdictions that supported teachers participating in the review processes.

Finally, appreciation is extended to the publishers, producers and distributors who, in many cases, engaged in significant development to provide resources specifically designed for *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12.*

Future Calls for Resources

The first call for resources for Grade 10 to Grade 12 mathematics resulted in the approval of an initial set of resources to support the Common Curriculum Framework. However, the set of approved resources is incomplete, with large gaps in the resource base to address some of the courses and clusters. Future calls for resources will be issued in an attempt to complete the collection of WCP approved resources for Grade 10 to Grade 12 mathematics.

The next call for mathematics resources for Grade 10 to Grade 12 should be issued later in 1998, and additional resources should be added to the WCP resource collection in the spring of 1999.

Applied Mathematics Breadth Resources

The call for applied and pure mathematics Grade 10 to Grade 12 resources was issued on June 25, 1996. By the spring of 1997, there were concerns that there might not be any applied mathematics breadth resources developed and submitted for review by the February 2, 1998 submission deadline. Through correspondence with all relevant publishers, this assumption was confirmed. A "Request for Proposal" to develop applied mathematics breadth resources for grades 10, 11 and 12 was issued in the fall of 1997. The submissions received were evaluated and one company was chosen for the contract. Addison-Wesley Longman has entered into a contract with Alberta Education and the WCP jurisdictions to prepare an applied mathematics resource for each of grades 10, 11 and 12.

The timelines for developing the materials are as follows:

Applied Mathematics - Grade 10

- 1/3 of the manuscript – June 1, 1998
- Entire preprint document without colour – August 15, 1998
- Final bound resource – June 1, 1999

Applied Mathematics - Grade 11

- Entire preprint document without colour – June 1, 1999
- Final bound resource – June 1, 2000

Applied Mathematics - Grade 12

- Entire preprint document without colour – June 1, 1999
- Final bound resource – June 1, 2001

Pure Mathematics Breadth Resources

From this first call for mathematics resources for Grade 10 to Grade 12, breadth resources were identified for Pure Mathematics 10 and 11 only. It is anticipated that additional breadth resources for pure mathematics will be received as part of the subsequent calls for resources.

Pure Mathematics - Grade 10

Two multicomponent series were approved as WCP mathematics resources for Pure Mathematics 10.

Pure Mathematics - Grade 11

One breadth resource was approved as a WCP mathematics resource for Pure Mathematics 11.

Pure Mathematics - Grade 12

No breadth resource was submitted for Pure Mathematics 12. It is anticipated that suitable submissions will be received as part of the next call for resources process.

Organization

The resources in this bibliography are organized by course, then alphabetically by title. Resources that are suitable for more than one course appear in each of the applicable courses, thus providing a comprehensive list of materials for each course.

Annotations with resource descriptions have been written for each resource. Where material is deemed to be particularly useful for students with special needs, this information is included in the *Audience* section of the annotation.

An alphabetical title listing at the end of the bibliography indicates the designated course(s) of each resource.

Note: In the annotations, Common Curriculum Framework is used to refer to the document, *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12.*

Pricing Information

The prices appearing in this document represent the estimated WCP prices to schools and should be firm until August 31, 1999.

These prices should be used as a guideline for purchase planning. They are applicable to all six participating jurisdictions (four provinces and two territories). The final selling prices for these resources may vary slightly in jurisdictions with book bureaus, depending upon jurisdictional negotiations. Confirmation on pricing should be obtained directly from your jurisdictional book bureau or redistribution centre, if applicable.

Resource Category

All learning and teaching resources included in this annotated bibliography were approved by the Western Assistant Deputy Ministers' Steering Committee and designated as WCP Key Resources for the Common Curriculum Framework.

Definitions

Fidelity is the degree to which the learning or teaching resource addresses the general and specific outcomes in the Common Curriculum Framework.

WCP Key Resources are high quality learning and teaching resources that best address the philosophy and content of the outcomes embodied in the Common Curriculum Framework. These include resources in a variety of media and formats, with the following characteristics:

- *Breadth* identifies learning resources with the highest possible level of fidelity with the general and specific outcomes published for a course.
- *Depth* identifies learning resources that address a limited range of general and specific outcomes for a cluster or set of clusters, but provide an especially effective learning experience for students.
- *Breadth and Depth* identifies comprehensive learning resources that provide both the *breadth* and *depth* dimensions for a particular course.
- *Teacher* identifies resources that assist teachers with the implementation of the Common Curriculum Framework and any courses derived from it.

Criteria for the Selection of Learning and Teaching Resources

Resources in this annotated bibliography were selected according to the following criteria:

- *Content and Curriculum Fit* includes how effectively a learning or teaching resource supports any given learning outcome within a strand or substrand and meets student needs.
- *Instructional Design* includes the organization and presentation techniques; the methods used to

introduce, develop and summarize concepts; the vocabulary level of the resource; and the suitability to student learning styles or to special audiences.

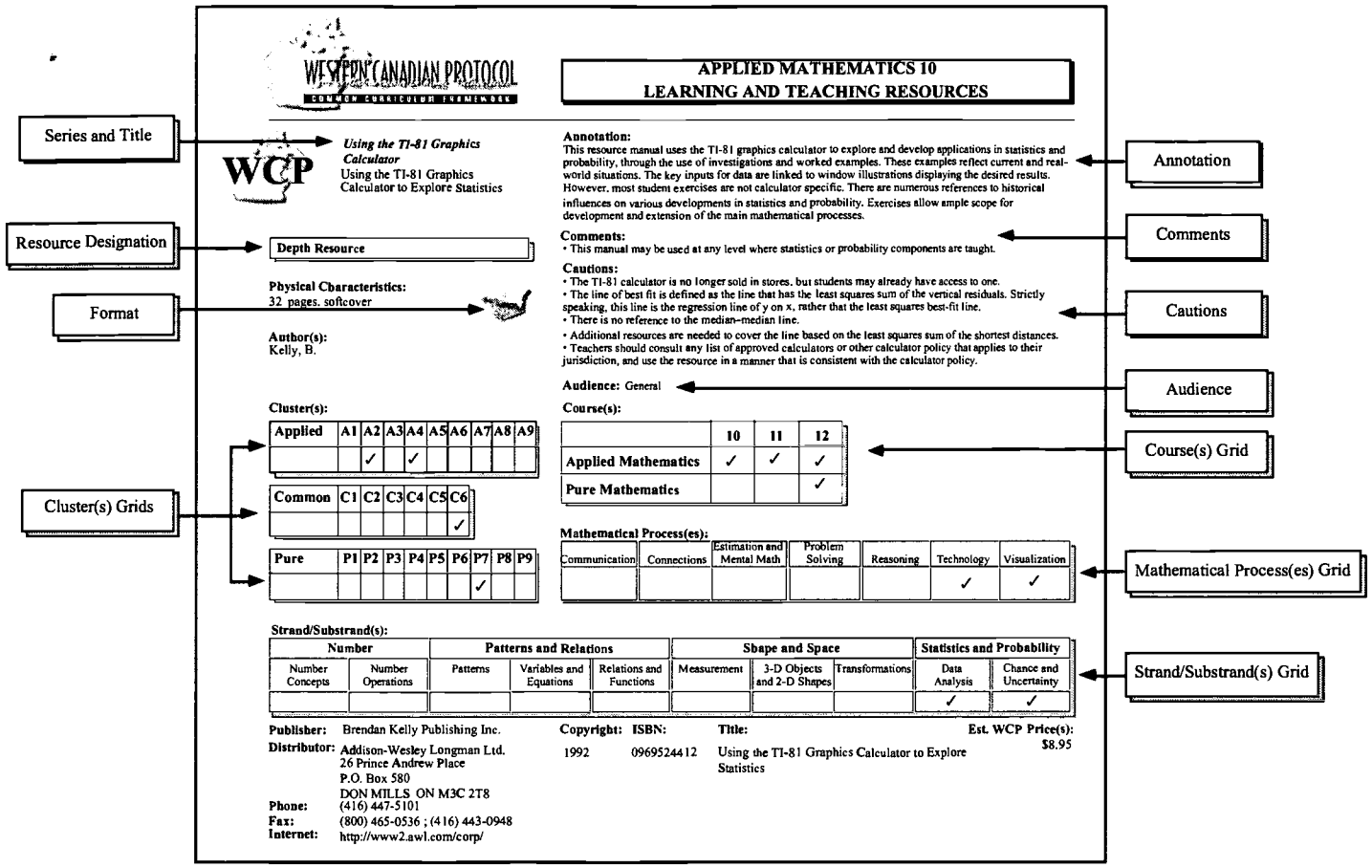
- *Technical Design* includes binding, type of print, quality of illustrations, durability and format. For multimedia resources, such factors as pacing, quality of pictures/sound, user friendliness, use of special features for emphasis, and interactivity are considered.

- *Social Considerations* includes screening for social concerns.

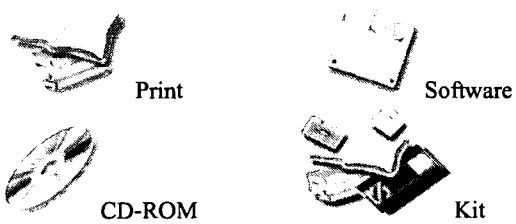
When selecting learning and teaching resources from this list, consideration should be given to how the resources meet the learning needs of students, and to the perspectives of the local community.

Information on a resource may be obtained from the descriptive information in this list, from the supplier, from published reviews or colleagues, and from an examination of the resource.

SAMPLE ANNOTATION



- *Series and Title:* series names are indicated by italics.
- *Resource Designation:* indicates breadth, depth, breadth and depth, or teacher resource.
- *Format:* is represented by an icon, such as:



- *Cluster(s) Grids:* identifies the cluster(s) of outcomes that are addressed in the resource.
- *Annotation:* provides an overview of the resource.
- *Comments:* provide additional information about the resource.
- *Cautions:* alert teachers to potentially sensitive issues/community concerns, or concerns about curriculum fit.
- *Audience:*
  - General: The majority of students.
  - LD: students who have difficulty in processing and understanding spoken, written or visual information.
  - ESL: students who are learning English as a second language.
- *Course(s) Grid:* identifies the course(s) for which the resource is most suitable.
- *Mathematical Process(es) Grid:* identifies those processes students will use when working through the activities provided in the resource.
- *Strand/Substrand(s) Grid:* allows teachers to see readily the fit between the Common Curriculum Framework strands/substrands and the outcomes covered in the resource.

WCP

Exploring Functions with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Exploring Statistics with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualizati
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

WCP

Geometer's Sketchpad
- The Geometer's Sketchpad (Macintosh Version 3)
- The Geometer's Sketchpad (Windows Version 3.03)

Depth Resource

Physical Characteristics:
- Macintosh Version: Three 3.5" discs; one binder with User Guide and Reference Manual, 242 pages, softcover; Teaching Notes, 78 pages; Macintosh Quick Reference; one videocassette
- Windows Version: Two 3.5" discs; one binder with User Guide and Reference Manual, 240 pages, softcover; Teaching Notes, 78 pages; Windows Quick Reference; one videocassette

Annotation:
This resource is designed as a tool for teaching and exploring geometrical concepts. It allows students to manipulate geometrical figures with a hands-on approach. The sketchpad models geometry in two linked views. Sketches depict concrete geometry and emphasize spatial reasoning, while scripts describe constructions verbally and abstractly. The program allows for the construction, labelling, measurement and manipulation of any geometric figure, as well as the exploration of geometry concepts taught in Grade 7 through Grade 11. For high school, the primary uses are in Pure Mathematics 10 and 11, although the program can be adapted to solve design and layout problems in Applied Mathematics 10 and 11. The user guide and reference manual provide adequate instruction for learning to use the program. The teaching notes and sample activities provide suggestions for classroom use. Several sample investigations, explorations, demonstrations and construction activities on a wide range of geometry topics are included.

Comments:
- This resource can have greater applications as the user becomes more familiar with the program.
- The videocassette supports both Macintosh and Windows.

System Requirements:
- Macintosh: minimum of a Macintosh Plus, with 1 MB RAM and System 6.0 or higher. Recommended is a system with 4 MB RAM and System 7.0 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 386/33 MHz, 4MB RAM, hard drive.
- Windows 95: 486/50 MHz, 8MB RAM, hard drive. The use of a Pentium processor and 16 MB RAM is recommended.

Cautions:
- The program defaults to inches, but it can be set to centimetres.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
	✓		✓						
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
	✓				✓				
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
					✓				

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
					✓	✓	✓		

Publisher: Spectrum Educational Supplies Ltd.
Distributor: Spectrum Educational Supplies Ltd.
125 Mary Street
AURORA ON L4G 1G3
Phone: (905) 841-0600
Fax: (905) 727-6265
Internet: http://www.spectrumed.com/

Copyright:
1995
1995

Component Titles:	Est. WCP Price(s):
• The Geometer's Sketchpad (Macintosh Version 3)	$274.95
• The Geometer's Sketchpad (Windows Version 3.03)	$274.95

Geometry Blaster (Windows / Macintosh CD-ROM Version)

Depth Resource

Physical Characteristics:
One CD-ROM

Annotation:
This CD-ROM package includes lessons, activities and games to teach and reinforce geometric concepts. It uses a three-level approach, allowing a student to progress at a beginning, an intermediate or a mastery level. In each of the individual lessons there are three sections: teach, practise and apply. The resource is primarily designed for individual student use — drill, practice, recreation and enrichment. The ten main topics explored are: points and lines, triangles, polygons and quadrilaterals, similarity, circles, perimeter and area, solids in 3-D, coordinate geometry, transformational geometry, and logical reasoning and proof. The program is interactive and requires decision making and creative thinking by students.

Comments:
- The resource is most useful for Grade 10.
- The resource has multiple levels, a good glossary and tutorial lessons to support the games.

System Requirements:
- Macintosh: System 7.0 or higher, 8 MB RAM.
- Windows 3.1: 386/33 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.

Cautions:
- There is minimal emphasis on real-life problem solving.
- The teacher has limited records with which to check student progress.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**

Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**
	✓		✓		✓	

Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
			✓		✓				

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓			✓	✓	✓		

Publisher: Davidson & Associates, Inc.
Distributor: Davidson & Associates, Inc.
P.O. Box 2961
19840 Pioneer Avenue
TORRANCE CA 90503
Phone: (310) 793-0600, ext. 1291
Fax: (310) 793-0601
Internet: http://www.education.com/

Copyright: 1996
ISBN: 0784910634
Title: Geometry Blaster (Windows / Macintosh CD-ROM Version)
Est. WCP Price(s): $79.95

WCP

Programming and Programs for the TI-82 Graphics Calculator

Teacher Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	
Common	C1	C2	C3	C4	C5	C6			
			✓	✓	✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

WCP

RADE (Radian Protractor and Teacher's Guide)

Depth Resource

Physical Characteristics:
One Radian Protractor and Teacher's Guide, 20 pages, loose, all in a softcover folder

Author(s):
Gagnon-Messier, D.; Forget, R.

Annotation:
The RADE is a circular protractor with scales in radians and decimals of a radian, π radians and fractions of π radians, as well as degrees. The accompanying teacher's guide explains the use of the protractor and provides overheads and question/answer worksheets for student use to reinforce concepts.

Comments:
- This resource is available in English and in French.
- The use of this resource is primarily limited to Pure Mathematics 12, outcomes P8–1 and P8–2, with a limited applicability to cluster C3 in Pure Mathematics 10 and Applied Mathematics 10.

Cautions:
- This resource is often marketed as part of a kit that contains other elements. The other components of the kit were either **not approved** as WCP resources for Grade 10 to Grade 12, or considered as **more appropriate for Grade 7 to Grade 9**.
- The approved resource consists **only** of the student protractor and the accompanying print guide.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
			✓			

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
								✓	

Course(s):

	10	11	12
Applied Mathematics	✓		
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓		✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓	✓	✓			

Publisher: Société RADE Enr.
Distributor: Curriculum Innovations
Box 48, Site 3, RR4
STONY PLAIN AB T7Z 1X4
Phone: (403) 963-5992
Fax: (403) 963-5981

Title: RADE (Radian Protractor and Teacher's Guide)
Est. WCP Price(s): $10.00

WCP

Box Cars & One-Eyed Jacks: Math Games for Kids
Radical Math: Math Games Using Cards and Dice (Volume VII)
(Grades 7 – 12)

Teacher Resource

Physical Characteristics:
208 pages, softcover, and 10 special dice

Author(s):
Currah, J.; Felling, J.; Lachance, N.

Annotation:
This resource offers some unique activities that target the Patterns and Relations strand. The majority of the activities are at the Grade 10 level. The resource encourages the processes of communication, estimation and mental mathematics, problem solving, reasoning, and visualization.

Comments:
- Many of the activities can be used to help students achieve fluency in such topics as polynomial manipulations and the use of equivalent forms of expressions containing radicals.
- There is a good curriculum fit to Pure Mathematics 10; the curriculum fit to Applied Mathematics 10 is not as good.

Cautions:
- Some sections of the resource are more suitable for prerequisite studies in Grade 7 to Grade 9.
- Some of the activities, especially those on the trigonometry of right triangles, are mislabelled for grade level.
- There are few real-life applications in the resource.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
	✓	✓				

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓	✓							

Course(s):

	10	11	12
Applied Mathematics	✓		
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓		✓			

Publisher: Box Cars & One-Eyed Jacks
Distributor: Box Cars & One-Eyed Jacks
3930 – 78 Avenue
EDMONTON AB T6B 2W4
Phone: (403) 440-6284
Fax: (403) 440-1619

Copyright: 1996
ISBN: 0968161308
Title: Radical Math: Math Games Using Cards and Dice (Volume VII) (Grades 7 – 12)
Est. WCP Price(s): $36.00

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Functions

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1991
ISBN: 0969524404
Title: Using the TI-81 Graphics Calculator to Explore Functions
Est. WCP Price(s): $8.95

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Statistics

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-81 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- There is no reference to the median–median line.
- Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
						✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
							✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1992
ISBN: 0969524412
Title: Using the TI-81 Graphics Calculator to Explore Statistics
Est. WCP Price(s): $8.95

What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Depth Resource

Physical Characteristics:
48 pages, softcover

Author(s):
Alexander, B.

Annotation:
This resource explores the straight line, using the TI-81 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- This "how to" resource is dependent upon the TI-81 calculator.
- The resource does not cover the line of best fit in any form.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 0969698100
Title: What If...?: The Straight Line: Investigations with the TI-81 Graphics Calculator
Est. WCP Price(s): $12.30

WCP

What If ...?: The Straight Line: Investigations with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
80 pages, softcover

Author(s):
Alexander, B.

Annotation:
This resource explores the straight line, using the TI-82 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes. This resource also introduces the concept of line of best fit.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- This "how to" resource is dependent upon the TI-82 calculator.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					

Common	C1	C2	C3	C4	C5	C6
		✓				

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
		✓	✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓				✓	

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Distributor: Addison-Wesley Longman Ltd.
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Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 0969698135
Title: What If...?: The Straight Line: Investigations with the TI-82 Graphics Calculator
Est. WCP Price(s): $12.30

WESTERN CANADIAN PROTOCOL
COMMON CURRICULUM FRAMEWORK

APPLIED MATHEMATICS 11
LEARNING AND TEACHING RESOURCES

Active Learning
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Depth Resource

Physical Characteristics:
90 pages, binder

Annotation:
This resource provides hands-on experience by using algebra tiles to help students develop an understanding of ratios, integers, polynomials, and factoring and solving equations. It provides ideas for teachers on how to help students use algebra tiles and the accompanying activity sheets. Each topic includes teacher notes, student blackline master activity sheets and answers for all activities.

Comments:
- Algebra tiles are not included.
- This resource is primarily for Pure Mathematics 10 but can also be used in Applied Mathematics 11 and Pure Mathematics 11.
- The number concepts and number operations outcomes addressed in this resource are in the Grade 7 to Grade 9 curriculum, not the Grade 10 curriculum.

Cautions:
- Some sections of the binder are more suitable for prerequisite studies in Grade 7 to Grade 9.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**

Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**
					✓	

Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
	✓		✓	✓					

Course(s):

	10	**11**	**12**
Applied Mathematics		✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓		✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**			**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓						

Publisher: Exclusive Educational Products
Distributor: Exclusive Educational Products
243 Saunders Road
BARRIE ON L4M 6E7
Phone: (705) 725-1166
Fax: (705) 725-1167

Copyright:
1991

Title:
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Est. WCP Price(s):
$34.95

Explore Quadratic Functions with the TI-83 or TI-82

Depth Resource

Physical Characteristics:
120 pages, softcover

Author(s):
Alexander, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
					✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓					

Annotation:
This manual can be used as either a student or a teacher resource for applying graphing calculator technology to the exploration of quadratic functions and equations. It contains concise and precise instructions on relevant keying sequences. There are many "window" diagrams showing input and output screens. Problems posed relate to real-world situations and provide ample opportunities for discussion, exploration and extension of a variety of situations beyond the routine.

Cautions:
- The resource uses keying sequences that are specific to the TI-83 and TI-82 models of calculator.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	11	12
Applied Mathematics		✓	
Pure Mathematics		✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1997
ISBN: 0969698143
Title: Explore Quadratic Functions with the TI-83 or TI-82
Est. WCP Price(s): $17.95

APPLIED MATHEMATICS 11
LEARNING AND TEACHING RESOURCES

Exploring Functions with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Exploring Statistics with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualizati
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Geometer's Sketchpad

- The Geometer's Sketchpad (Macintosh Version 3)
- The Geometer's Sketchpad (Windows Version 3.03)

Depth Resource

Physical Characteristics:

- Macintosh Version: Three 3.5" discs; one binder with User Guide and Reference Manual, 242 pages, softcover; Teaching Notes, 78 pages; Macintosh Quick Reference; one videocassette
- Windows Version: Two 3.5" discs; one binder with User Guide and Reference Manual, 240 pages, softcover; Teaching Notes, 78 pages; Windows Quick Reference; one videocassette

Annotation:
This resource is designed as a tool for teaching and exploring geometrical concepts. It allows students to manipulate geometrical figures with a hands-on approach. The sketchpad models geometry in two linked views. Sketches depict concrete geometry and emphasize spatial reasoning, while scripts describe constructions verbally and abstractly. The program allows for the construction, labelling, measurement and manipulation of any geometric figure, as well as the exploration of geometry concepts taught in Grade 7 through Grade 11. For high school, the primary uses are in Pure Mathematics 10 and 11, although the program can be adapted to solve design and layout problems in Applied Mathematics 10 and 11. The user guide and reference manual provide adequate instruction for learning to use the program. The teaching notes and sample activities provide suggestions for classroom use. Several sample investigations, explorations, demonstrations and construction activities on a wide range of geometry topics are included.

Comments:
- This resource can have greater applications as the user becomes more familiar with the program.
- The videocassette supports both Macintosh and Windows.

System Requirements:
- Macintosh: minimum of a Macintosh Plus, with 1 MB RAM and System 6.0 or higher. Recommended is a system with 4 MB RAM and System 7.0 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 386/33 MHz, 4MB RAM, hard drive.
- Windows 95: 486/50 MHz, 8MB RAM, hard drive. The use of a Pentium processor and 16 MB RAM is recommended.

Cautions:
- The program defaults to inches, but it can be set to centimetres.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
	✓		✓						
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
	✓				✓				
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
					✓				

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**			**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
					✓	✓	✓		

Publisher: Spectrum Educational Supplies Ltd.
Distributor: Spectrum Educational Supplies Ltd.
125 Mary Street
AURORA ON L4G 1G3
Phone: (905) 841-0600
Fax: (905) 727-6265
Internet: http://www.spectrumed.com/

Component Titles:	**Est. WCP Price(s):**
• The Geometer's Sketchpad (Macintosh Version 3)	$274.95
• The Geometer's Sketchpad (Windows Version 3.03)	$274.95

WCP

Geometry Blaster (Windows / Macintosh CD-ROM Version)

Depth Resource

Physical Characteristics:
One CD-ROM

Annotation:
This CD-ROM package includes lessons, activities and games to teach and reinforce geometric concepts. It uses a three-level approach, allowing a student to progress at a beginning, an intermediate or a mastery level. In each of the individual lessons there are three sections: teach, practise and apply. The resource is primarily designed for individual student use — drill, practice, recreation and enrichment. The ten main topics explored are: points and lines, triangles, polygons and quadrilaterals, similarity, circles, perimeter and area, solids in 3-D, coordinate geometry, transformational geometry, and logical reasoning and proof. The program is interactive and requires decision making and creative thinking by students.

Comments:
- The resource is most useful for Grade 10.
- The resource has multiple levels, a good glossary and tutorial lessons to support the games.

System Requirements:
- Macintosh: System 7.0 or higher, 8 MB RAM.
- Windows 3.1: 386/33 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.

Cautions:
- There is minimal emphasis on real-life problem solving.
- The teacher has limited records with which to check student progress.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**

Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**
	✓		✓		✓	

Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
			✓		✓				

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓			✓	✓	✓		

Publisher: Davidson & Associates, Inc.
Distributor: Davidson & Associates, Inc.
P.O. Box 2961
19840 Pioneer Avenue
TORRANCE CA 90503
Phone: (310) 793-0600, ext. 1291
Fax: (310) 793-0601
Internet: http://www.education.com/

Copyright: 1996
ISBN: 0784910634
Title: Geometry Blaster (Windows / Macintosh CD-ROM Version)
Est. WCP Price(s): $79.95

WCP

Programming and Programs for the TI-82 Graphics Calculator

Teacher Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	
Common	C1	C2	C3	C4	C5	C6			
			✓	✓	✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Using the TI-81 Graphics Calculator

Using the TI-81 Graphics Calculator to Explore Functions

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1991
ISBN: 0969524404
Title: Using the TI-81 Graphics Calculator to Explore Functions
Est. WCP Price(s): $8.95

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Statistics

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-81 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- There is no reference to the median–median line.
- Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					

Common	C1	C2	C3	C4	C5	C6
						✓

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
							✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1992
ISBN: 0969524412
Title: Using the TI-81 Graphics Calculator to Explore Statistics
Est. WCP Price(s): $8.95

What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Depth Resource

Physical Characteristics:
48 pages, softcover

Author(s):
Alexander, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Annotation:
This resource explores the straight line, using the TI-81 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- This "how to" resource is dependent upon the TI-81 calculator.
- The resource does not cover the line of best fit in any form.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 0969698100
Title: What If...?: The Straight Line: Investigations with the TI-81 Graphics Calculator
Est. WCP Price(s): $12.30

WCP

What If ...?: The Straight Line: Investigations with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
80 pages, softcover

Author(s):
Alexander, B.

Annotation:
This resource explores the straight line, using the TI-82 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes. This resource also introduces the concept of line of best fit.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- This "how to" resource is dependent upon the TI-82 calculator.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
		✓							
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
		✓	✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓				✓	

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Phone: (416) 447-5101
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Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 0969698135
Title: What If...?: The Straight Line: Investigations with the TI-82 Graphics Calculator
Est. WCP Price(s): $12.30

APPLIED MATHEMATICS 12
LEARNING AND TEACHING RESOURCES

WCP

Exploring Statistics with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

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Phone: (416) 447-5101
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Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Programming and Programs for the TI-82 Graphics Calculator

Teacher Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	

Common	C1	C2	C3	C4	C5	C6
			✓	✓	✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

APPLIED MATHEMATICS 12
LEARNING AND TEACHING RESOURCES

Secondary Math
- Secondary Math Lab Toolkit (Macintosh Version)
- Secondary Math Lab Toolkit (Windows Version)

Depth Resource

Physical Characteristics:
- Macintosh Version: Three 3.5" discs and User's Guide, 128 pages, softcover
- Windows Version: Five 3.5" discs and User's Guide, 128 pages, softcover

Author(s):
Bedoya, J.Z. et al.

Annotation:
The toolkit contains graphical tools for algebra, geometry, data analysis and probability. A text editor, function editor, spreadsheet editor and matrix editor are linked. The graphs are clear and may be transformed in a variety of ways. Probability models use dice and spinners. A visual representation of algebra tiles is included.

Comments:
- Experienced users will be able to use the resource more profitably than beginners.
- There is a high level of linking among all tools within the toolkit.
- The resource provides methods of transforming functions from symbolic editor to graphs and vice versa.

System Requirements:
- Macintosh: minimum of a Macintosh LC II, with 6 MB RAM and System 7.0 or higher. Recommended is a PowerMac system with 8 MB RAM and System 7.5 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 486/33 MHz, 12 MB RAM, hard drive.
- Windows 95: 486/50 MHz, 12 MB RAM, hard drive. The use of a Pentium processor with 16 MB RAM is recommended.

Cautions:
- The resource provides methods of transforming relations only from within the symbolic editor, but not from graphical forms.
- The algebra tiles representations are very limited and are harder to use and less flexible than the concrete tiles.
- The tutorial materials may be insufficient for users of the toolkit.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
						✓		✓	✓

Common	C1	C2	C3	C4	C5	C6

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓		✓	✓	✓	✓	✓	✓

Course(s):

	10	11	12
Applied Mathematics			✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
	✓	✓	✓	✓		✓	✓	✓	✓

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Copyright:	ISBN:	Component Titles:	Est. WCP Price(s):
1998	0134330439	• Secondary Math Lab Toolkit (Macintosh Version)	$137.95 (Single User Version) $499.95 (Site License)
1998	0134330447	• Secondary Math Lab Toolkit (Windows Version)	$137.95 (Single User Version) $499.95 (Site License)

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Statistics

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-81 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- There is no reference to the median–median line.
- Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					

Common	C1	C2	C3	C4	C5	C6
						✓

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
							✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

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Distributor: Addison-Wesley Longman Ltd.
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Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1992
ISBN: 0969524412
Title: Using the TI-81 Graphics Calculator to Explore Statistics
Est. WCP Price(s): $8.95

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Addison-Wesley Mathematics 10 (Western Canadian Edition)
- Student Text
- Independent Study Guide
- Teacher's Resource Book (includes CD-ROM)
- Template and Data Kit (includes Teacher's Guide and CD-ROM, Version 1.0)

Breadth Resource

Physical Characteristics:
- Student Text – 651 pages, hardcover
- Independent Study Guide – 138 pages, softcover
- Teacher's Resource Book – includes 11 booklets — approximately 400 pages — and one CD-ROM, in a 3-ring binder.
- Template and Data Kit – Teacher's Guide, 154 pages, coilbound; and one CD-ROM (for ClarisWorks, Macintosh 2.0, Windows 1.0, Microsoft Works 3.0, Microsoft Office 97 and Windows 95)

Author(s):
Alexander, R. et al.

Annotation:
The resource package closely maps the content of the Common Curriculum Framework. The framework's mathematical processes are embedded throughout the resource. A conscientious effort was employed to relate the mathematical concepts developed to real-world situations. The student text makes good use of visual presentations, and the format is consistent throughout. Icons and headings are the primary means of navigation through the student text.

This program supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts, and open-ended questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas; manipulatives are used for the understanding of abstract concepts; and the use of appropriate technology is integrated throughout the text. The mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology, and visualization are highlighted through the use of icons in examples, explanations and activities.

• *Student Text*
The text has nine chapters that relate mathematical content to topics from the Common Curriculum Framework strands. Each chapter focuses on a connection problem, entitled "Mathematical Modelling." Relevant mathematical material either precedes the problem, or follows the problem, depending on the chapter. An inquiry approach is used to discover concepts in the development of the outcomes. Practice exercises are included. Applications and problem-solving questions use real-life examples. Major examples that incorporate graphing calculators and computer software occur throughout the resource. Further attention to the mathematical processes is found in the other components of the resource.
• *Independent Study Guide*
This resource provides students with additional examples and explanations to supplement the material in the main student resource. An introductory chapter helps the student develop efficient study skills. For the other nine chapters, which parallel the chapters of the student text, additional explanations, cross-referenced self-tests, mini-glossaries and overviews provide additional assistance to the student. Solutions to the self-tests included in the independent study guide are given at the back of the guide in short form, and in more extended form on a CD-ROM included in the teacher's resource book.
• *Teacher's Resource Book*
The teacher's resource book contains comprehensive teaching notes for each section of the student text, and blackline masters, as well as reinforcement, extension, enrichment and assessment activities. A graphing calculator handbook and reproducible graphing calculator activities are included. A CD-ROM with solutions to the student text and independent study guide is part of the teacher's resource book.
• *Template and Data Kit*
This resource includes four extensive databases: weather, helicopters, Olympic Summer Games and youth health; templates for the spreadsheet activities found in the student text; and a teacher's guide. The teacher's guide contains spreadsheet and database tutorials, additional technology activities, and teaching notes and answers. The activities address a wide variety of outcomes.

Comments:
- The student resource attempts to incorporate the mathematical processes and the philosophy of the Common Curriculum Framework through the use of appropriate section headings and icons.
- In each of the chapters of the teacher resource there is cross-referencing of the mathematical processes to the materials being presented to the students. Emphasis given to technological solutions is most apparent in the teacher resource.
- Exercises are split into A, B and C levels. Students who only do the A exercises will not have enough exposure to the mathematical processes.
- Manipulatives, such as algebra tiles and suitable software, are necessary for using the resource effectively. These are not supplied with the resource.

System Requirements:
Template and Data Kit
- Macintosh: System 6.0.5 or higher, 4 MB RAM, mouse, ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum, 4 MB RAM (8 MB recommended), either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, mouse, either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

Cautions:
- References are made in both the student and the teacher materials to specific Internet web sites, including one mathematics site being maintained by Addison-Wesley Longman. **These web sites, including Addison-Wesley Longman's own site, are not approved. Teachers, for their own protection, should review the current status of the web sites, including the documents identified in the links, to ensure that the site contains accurate information and information that meets the criterion of social considerations.**
- In the treatment of the outcomes related to right-angled trigonometry, there is material in the student resource that relates only to the outcomes incorporated in the Common Curriculum Framework at the Grade 9 level.
- The template and data kit can only be used with ClarisWorks, Microsoft Works or Microsoft Excel/Access when used in a Windows 95 environment. In a Windows 3.1 environment, only ClarisWorks can be used.

Audience: General

Continued

WESTERN CANADIAN PROTOCOL
COMMON CURRICULUM FRAMEWORK

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓	✓	✓						
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓	✓							

Course(s):

	10	11	12
Applied Mathematics			
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓

Publisher: Addison-Wesley
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
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Phone: (416) 447-5101
FAX: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

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1998	0201346192	• Student Text	$49.95
1998	0201346206	• Independent Study Guide	$5.95
1998	0201346214	• Teacher's Resource Book (includes CD-ROM)	$119.95
1998	0201346230	• Template and Data Kit (includes Teacher's Guide and CD-ROM, Version 1.0)	$119.95

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Active Learning
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Depth Resource

Physical Characteristics:
90 pages, binder

Annotation:
This resource provides hands-on experience by using algebra tiles to help students develop an understanding of ratios, integers, polynomials, and factoring and solving equations. It provides ideas for teachers on how to help students use algebra tiles and the accompanying activity sheets. Each topic includes teacher notes, student blackline master activity sheets and answers for all activities.

Comments:
- Algebra tiles are not included.
- This resource is primarily for Pure Mathematics 10 but can also be used in Applied Mathematics 11 and Pure Mathematics 11.
- The number concepts and number operations outcomes addressed in this resource are in the Grade 7 to Grade 9 curriculum, not the Grade 10 curriculum.

Cautions:
- Some sections of the binder are more suitable for prerequisite studies in Grade 7 to Grade 9.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
					✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓		✓	✓					

Course(s):

	10	11	12
Applied Mathematics		✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓						

Publisher: Exclusive Educational Products
Distributor: Exclusive Educational Products
243 Saunders Road
BARRIE ON L4M 6E7
Phone: (705) 725-1166
FAX: (705) 725-1167

Copyright: 1991

Title: Alge-Tiles: Grades 7–11 (Ages 12–16+)

Est. WCP Price(s): $34.95

Exploring Functions with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
FAX: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Exploring Statistics with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
FAX: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

WCP

Geometer's Sketchpad
- The Geometer's Sketchpad (Macintosh Version 3)
- The Geometer's Sketchpad (Windows Version 3.03)

Depth Resource

Physical Characteristics:

- Macintosh Version: Three 3.5" discs; one binder with User Guide and Reference Manual, 242 pages, softcover; Teaching Notes, 78 pages; Macintosh Quick Reference; one videocassette
- Windows Version: Two 3.5" discs; one binder with User Guide and Reference Manual, 240 pages, softcover; Teaching Notes, 78 pages; Windows Quick Reference; one videocassette

Annotation:
This resource is designed as a tool for teaching and exploring geometrical concepts. It allows students to manipulate geometrical figures with a hands-on approach. The sketchpad models geometry in two linked views. Sketches depict concrete geometry and emphasize spatial reasoning, while scripts describe constructions verbally and abstractly. The program allows for the construction, labelling, measurement and manipulation of any geometric figure, as well as the exploration of geometry concepts taught in Grade 7 through Grade 11. For high school, the primary uses are in Pure Mathematics 10 and 11, although the program can be adapted to solve design and layout problems in Applied Mathematics 10 and 11. The user guide and reference manual provide adequate instruction for learning to use the program. The teaching notes and sample activities provide suggestions for classroom use. Several sample investigations, explorations, demonstrations and construction activities on a wide range of geometry topics are included.

Comments:
- This resource can have greater applications as the user becomes more familiar with the program.
- The videocassette supports both Macintosh and Windows.

System Requirements:
- Macintosh: minimum of a Macintosh Plus, with 1 MB RAM and System 6.0 or higher. Recommended is a system with 4 MB RAM and System 7.0 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 386/33 MHz, 4MB RAM, hard drive.
- Windows 95: 486/50 MHz, 8MB RAM, hard drive. The use of a Pentium processor and 16 MB RAM is recommended.

Cautions:
- The program defaults to inches, but it can be set to centimetres.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
	✓		✓						
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
	✓				✓				
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
					✓				

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**			**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
					✓	✓	✓		

Publisher: Spectrum Educational Supplies Ltd.
Distributor: Spectrum Educational Supplies Ltd.
125 Mary Street
AURORA ON L4G 1G3
Phone: (905) 841-0600
FAX: (905) 727-6265
Internet: http://www.spectrumed.com/

Copyright:
1995
1995

Component Titles:	**Est. WCP Price(s):**
• The Geometer's Sketchpad (Macintosh Version 3)	$274.95
• The Geometer's Sketchpad (Windows Version 3.03)	$274.95

Geometry Blaster (Windows / Macintosh CD-ROM Version)

Depth Resource

Physical Characteristics:
One CD-ROM

Annotation:
This CD-ROM package includes lessons, activities and games to teach and reinforce geometric concepts. It uses a three-level approach, allowing a student to progress at a beginning, an intermediate or a mastery level. In each of the individual lessons there are three sections: teach, practise and apply. The resource is primarily designed for individual student use — drill, practice, recreation and enrichment. The ten main topics explored are: points and lines, triangles, polygons and quadrilaterals, similarity, circles, perimeter and area, solids in 3-D, coordinate geometry, transformational geometry, and logical reasoning and proof. The program is interactive and requires decision making and creative thinking by students.

Comments:
- The resource is most useful for Grade 10.
- The resource has multiple levels, a good glossary and tutorial lessons to support the games.

System Requirements:
- Macintosh: System 7.0 or higher, 8 MB RAM.
- Windows 3.1: 386/33 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.

Cautions:
- There is minimal emphasis on real-life problem solving.
- The teacher has limited records with which to check student progress.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
	✓		✓		✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓		✓				

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓			✓	✓	✓		

Publisher: Davidson & Associates, Inc.
Distributor: Davidson & Associates, Inc.
P.O. Box 2961
19840 Pioneer Avenue
TORRANCE CA 90503
Phone: (310) 793-0600, ext. 1291
FAX: (310) 793-0601
Internet: http://www.education.com/

Copyright: 1996
ISBN: 0784910634
Title: Geometry Blaster (Windows / Macintosh CD-ROM Version)
Est. WCP Price(s): $79.95

MATHPOWER 10 (Western Edition)
- Student Text
- Teacher's Resource
- Computer Data Bank (Teacher's Resource and Data Disk)
- Computerized Assessment Bank

Breadth Resource

Physical Characteristics:
- Student Text – 480 pages, hardcover
- Teacher's Resource – 310 pages, softcover
- Computer Data Bank – Teacher's Resource, 98 pages, softcover; Data Disk, one 3.5" disc
- Computerized Assessment Bank – Four 3.5" discs; and User's Notes, 27 pages, softcover

Author(s):
Angel, P. et al.

Annotation:
The resource package closely maps the content and philosophy of the Common Curriculum Framework. The framework's mathematical processes are woven throughout the resource. A conscientious effort was made to relate the mathematical concepts to real-world situations. The student text makes good use of visual presentations, and the format is consistent throughout.

This program supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts, and questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas; manipulatives are used for the understanding of abstract concepts; and the use of appropriate technology is integrated throughout the text. The mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology, and visualization are integrated in examples and activities.

• *Student Text*
The text has eight chapters that relate to topics from the Common Curriculum Framework strands. Each chapter begins with a connection problem followed by a "Getting Started" section. An inquiry approach is used to discover concepts in the development of the outcomes. Practice exercises are included. Applications and problem-solving questions use real-life examples. Suggestions are made for incorporating graphing calculators and computer software. Chapter reviews as well as cumulative reviews are provided. Resources at the end of the text include data banks, answers, glossary, applications index and technology index.
• *Teacher's Resource*
The teacher's resource contains extensive teaching notes, including enrichment and reteaching ideas, a list of prerequisite skills, and assessment strategies. Also included are suggestions for addressing the use of technology and the mathematical processes, especially communication, mental mathematics, problem solving and connections. Some answers for problems are provided, with one solution being given for those problems with multiple approaches/solutions. Blackline masters are included for grid, dot and geometric net shapes, and for alternate assessment forms.
• *Computer Data Bank*
This resource includes five extensive, high interest databases — movies, sports, skiing, Olympics and insurance — together with a teacher's resource. In addition to application blackline masters for student work, software specific blackline masters are included to help teach database management skills. Questions address a wide variety of outcomes.
• *Computerized Assessment Bank*
This Windows based (3.1 or 95) software package includes a manual, a mathematical editor and a questi bank. There are about 50 questions per chapter. Some multiple choice questions can have their distractors reordered; and, for many other questions, the user can change key parameters in the stem, whereupon the program will change the distractors with a click of a button. The mathematical editor allows teachers to add questions to address more fully the philosophy of the program.

Comments:
• The introductory pages of the student resource, which outline the mathematical processes and the NCTM Standards, are an essential part of the resource.
• An introduction to the operation of ClarisWorks for Windows 4.0 and Microsoft Works for Windows 3.0 is included as part of the teacher's resource for the computer data bank.
• Manipulatives, such as algebra tiles and suitable software, are necessary for using the resource effectively. These are not supplied with the resource.

System Requirements:
Computer Data Bank
• Windows 95: 486/50 MHz, 8 MB RAM, mouse, either ClarisWorks or Microsoft Works.
• Windows 3.1: 386DX/33 MHz minimum, 4 MB RAM (8 MB recommended), Microsoft Works. Windows 95 recommended.

Computerized Assessment Bank
• Windows 95: 486DX/66 MHz, Pentium processor recommended, 8 MB RAM, mouse, either ClarisWorks or Microsoft Works.
• Windows 3.1: 486DX/66 MHz, Pentium processor recommended, 5 MB RAM (8 MB recommended), Microsoft Works. Windows 95 recommended.

Cautions:
• References are made in both the student and the teacher materials to specific Internet web sites. **The web sites are not approved. Teachers, for their own protection, should review the current status of the web sites, including the documents identified in the links, to ensure that the site contains accurate information and information that meets the criterion of social considerations.**
• Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.
• The computerized assessment bank is a test generator but does not include a tracking system.
• The computer data bank can only be used with ClarisWorks for Windows or Microsoft Works for Windows. It does not include either a Macintosh version or a version that can be used with any of the standard office suites, whether Macintosh or Windows 95.
• For those using the 486DX chip, a math coprocessor is required to use the computerized assessment bank. The bank can be operated with all Pentium chips.

Audience: General

Continued

WESTERN CANADIAN PROTOCOL
COMMON CURRICULUM FRAMEWORK

PURE MATHEMATICS 10
LEARNING AND TEACHING RESOURCES

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
	✓	✓	✓						
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
	✓	✓							

Course(s):

	10	11	12
Applied Mathematics			
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**			**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
✓	✓	✓	✓	✓	✓	✓	N/A	✓	✓

Publisher: McGraw-Hill Ryerson
Distributor: McGraw-Hill Ryerson Ltd.
300 Water Street
WHITBY ON L1N 9B6
Phone: (905) 430-5080
FAX: (905) 430-5194
Internet: http://www.mcgrawhill.ca

Copyright:	ISBN:	Component Titles:	Est. WCP Price(s):
1998	0075525968	• Student Text	$48.95
1998	0075525976	• Teacher's Resource	$110.00
1998	0075600196	• Computer Data Bank (Teacher's Resource and Data Disk)	$110.00
1998	0075601621	• Computerized Assessment Bank	$225.00

WCP

Programming and Programs for the TI-82 Graphics Calculator

Teacher Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	

Common	C1	C2	C3	C4	C5	C6
			✓	✓	✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
FAX: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

RADE (Radian Protractor and Teacher's Guide)

Depth Resource

Physical Characteristics:
One Radian Protractor and Teacher's Guide, 20 pages, loose, all in a softcover folder

Author(s):
Gagnon-Messier, D.; Forget, R.

Annotation:
The RADE is a circular protractor with scales in radians and decimals of a radian, π radians and fractions of π radians, as well as degrees. The accompanying teacher's guide explains the use of the protractor and provides overheads and question/answer worksheets for student use to reinforce concepts.

Comments:
- This resource is available in English and in French.
- The use of this resource is primarily limited to Pure Mathematics 12, outcomes P8–1 and P8–2, with a limited applicability to cluster C3 in Pure Mathematics 10 and Applied Mathematics 10.

Cautions:
- This resource is often marketed as part of a kit that contains other elements. The other components of the kit were either **not approved** as WCP resources for Grade 10 to Grade 12, or considered as **more appropriate for Grade 7 to Grade 9**.
- The approved resource consists **only** of the student protractor and the accompanying print guide.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
			✓						
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
								✓	

Course(s):

	10	11	12
Applied Mathematics	✓		
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓		✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓	✓	✓			

Publisher: Société RADE Enr.

Distributor: Curriculum Innovations
Box 48, Site 3, RR4
STONY PLAIN AB T7Z 1X4

Phone: (403) 963-5992
FAX: (403) 963-5981

Title: RADE (Radian Protractor and Teacher's Guide)

Est. WCP Price(s): $10.00

WCP

Box Cars & One-Eyed Jacks: Math Games for Kids
Radical Math: Math Games Using Cards and Dice (Volume VII)
(Grades 7 – 12)

Teacher Resource

Physical Characteristics:
208 pages, softcover, and 10 special dice

Author(s):
Currah, J.; Felling, J.; Lachance, N.

Annotation:
This resource offers some unique activities that target the Patterns and Relations strand. The majority of the activities are at the Grade 10 level. The resource encourages the processes of communication, estimation and mental mathematics, problem solving, reasoning, and visualization.

Comments:
- Many of the activities can be used to help students achieve fluency in such topics as polynomial manipulations and the use of equivalent forms of expressions containing radicals.
- There is a good curriculum fit to Pure Mathematics 10; the curriculum fit to Applied Mathematics 10 is not as good.

Cautions:
- Some sections of the resource are more suitable for prerequisite studies in Grade 7 to Grade 9.
- Some of the activities, especially those on the trigonometry of right triangles, are mislabelled for grade level.
- There are few real-life applications in the resource.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
	✓	✓							
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
	✓	✓							

Course(s):

	10	11	12
Applied Mathematics	✓		
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓		✓			

Publisher: Box Cars & One-Eyed Jacks
Distributor: Box Cars & One-Eyed Jacks
3930 – 78 Avenue
EDMONTON AB T6B 2W4
Phone: (403) 440-6284
FAX: (403) 440-1619

Copyright: 1996
ISBN: 0968161308
Title: Radical Math: Math Games Using Cards and Dice (Volume VII) (Grades 7 – 12)
Est. WCP Price(s): $36.00

Secondary Math
- Secondary Math Lab Toolkit (Macintosh Version)
- Secondary Math Lab Toolkit (Windows Version)

Depth Resource

Physical Characteristics:
- Macintosh Version: Three 3.5" discs and User's Guide, 128 pages, softcover
- Windows Version: Five 3.5" discs and User's Guide, 128 pages, softcover

Author(s):
Bedoya, J.Z. et al.

Annotation:
The toolkit contains graphical tools for algebra, geometry, data analysis and probability. A text editor, function editor, spreadsheet editor and matrix editor are linked. The graphs are clear and may be transformed in a variety of ways. Probability models use dice and spinners. A visual representation of algebra tiles is included.

Comments:
- Experienced users will be able to use the resource more profitably than beginners.
- There is a high level of linking among all tools within the toolkit.
- The resource provides methods of transforming functions from symbolic editor to graphs and vice versa.

System Requirements:
- Macintosh: minimum of a Macintosh LC II, with 6 MB RAM and System 7.0 or higher. Recommended is a PowerMac system with 8 MB RAM and System 7.5 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 486/33 MHz, 12 MB RAM, hard drive.
- Windows 95: 486/50 MHz, 12 MB RAM, hard drive. The use of a Pentium processor with 16 MB RAM is recommended.

Cautions:
- The resource provides methods of transforming relations only from within the symbolic editor, but not from graphical forms.
- The algebra tiles representations are very limited and are harder to use and less flexible than the concrete tiles.
- The tutorial materials may be insufficient for users of the toolkit.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
						✓		✓	✓
Common	C1	C2	C3	C4	C5	C6			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓		✓	✓	✓	✓	✓	✓

Course(s):

	10	11	12
Applied Mathematics			✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
	✓	✓	✓	✓		✓	✓	✓	✓

Publisher: Prentice Hall, Inc.
Distributor: Prentice Hall Ginn Publishing Co.
1870 Birchmount Road
SCARBOROUGH ON M1P 2J7
Phone: (416) 293-3621
FAX: (416) 297-2601
Internet: http://www.prenhall.com/

Copyright:	ISBN:	Component Titles:	Est. WCP Price(s):
1998	0134330439	• Secondary Math Lab Toolkit (Macintosh Version)	$137.95 (Single User Version) $499.95 (Site License)
1998	0134330447	• Secondary Math Lab Toolkit (Windows Version)	$137.95 (Single User Version) $499.95 (Site License)

Using the TI-81 Graphics Calculator

Using the TI-81 Graphics Calculator to Explore Functions

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
FAX: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1991
ISBN: 0969524404
Title: Using the TI-81 Graphics Calculator to Explore Functions
Est. WCP Price(s): $8.95

What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Depth Resource

Physical Characteristics:
48 pages, softcover

Author(s):
Alexander, B.

Annotation:
This resource explores the straight line, using the TI-81 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- This "how to" resource is dependent upon the TI-81 calculator.
- The resource does not cover the line of best fit in any form.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
		✓			✓				
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
FAX: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 0969698100
Title: What If...?: The Straight Line: Investigations with the TI-81 Graphics Calculator
Est. WCP Price(s): $12.30

WCP

What If ...?: The Straight Line: Investigations with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
80 pages, softcover

Author(s):
Alexander, B.

Annotation:
This resource explores the straight line, using the TI-82 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes. This resource also introduces the concept of line of best fit.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- This "how to" resource is dependent upon the TI-82 calculator.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					

Common	C1	C2	C3	C4	C5	C6
		✓				

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓		

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
		✓	✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓				✓	

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
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Phone: (416) 447-5101
FAX: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 0969698135
Title: What If...?: The Straight Line: Investigations with the TI-82 Graphics Calculator
Est. WCP Price(s): $12.30

PURE MATHEMATICS 11
LEARNING AND TEACHING RESOURCES

Addison-Wesley Mathematics 11 (Western Canadian Edition)
• Student Text

Breadth Resource

Physical Characteristics:
601 pages, hardcover

Author(s):
Alexander, R. et al.

Annotation:
The student resource closely maps the content of the Common Curriculum Framework. The framework's mathematical processes are embedded throughout the resource. A conscientious effort was employed to relate the mathematical concepts developed to real-world situations. The student text makes good use of visual presentations, and the format is consistent throughout. Icons and headings are the primary means of navigation through the resource.

This program supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts, and open-ended questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, when appropriate, to explore new ideas; manipulatives are used for the understanding of abstract concepts; and the use of appropriate technology is integrated througout the text. The mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology, and visualization are often highlighted through the use of icons in examples, explanations and activities.

• *Student Text*
The text has nine chapters that relate mathematical content to topics from the Common Curriculum Framework strands. Each chapter focuses on a connection problem, entitled "Mathematical Modelling." Relevant mathematical material either precedes the problem, or follows the problem, depending on the chapter. An inquiry approach is used to discover concepts in the development of the outcomes. Practice exercises are included. Applications and problem-solving questions use real-life examples. Major examples that incorporate graphing calculators and computer software occur throughout the resource.

Comments:
• The student resource attempts to incorporate the mathematical processes and the philosophy of the Common Curriculum Framework through the use of appropriate section headings and icons.
• The treatment of nonlinear functions and equations relies heavily on the use of the graphing calculator. Function graphs and numerical equation solutions are treated in advance of the closed-form solutions of the quadratic equation. This contrasts to many resources, which treat the quadratic equation first, with greater emphasis on closed-form solutions.
• Exercises are split into A, B and C levels. Students who only do the A exercises will not have enough exposure to the mathematical processes.
• Manipulatives, such as algebra tiles and suitable software, are necessary for using the resource effectively. These are not supplied with the resource.

Cautions:
• References are made in the resource to specific Internet web sites, including one mathematics site being maintained by Addison-Wesley Longman. **These web sites, including Addison-Wesley Longman's own site, are not approved. Teachers, for their own protection, should review the current status of the web sites, including the documents identified in the links, to ensure that the site contains accurate information and information that meets the criterion of social considerations.**
• Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.
• The student resource contains no reference to the ambiguous case for the solving of oblique triangles. The reference to the ambiguous case is found instead as one exercise in the *Addison-Wesley Mathematics 10* student text.

Audience: General

Continued

PURE MATHEMATICS 11
LEARNING AND TEACHING RESOURCES

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
				✓	✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓	✓				

Course(s):

	10	11	12
Applied Mathematics			
Pure Mathematics		✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
N/A	✓	✓	✓	✓		✓	N/A	N/A	N/A

Publisher: Addison-Wesley
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1998
ISBN: 0201346249
Title: Student Text
Est. WCP Price(s): $51.95

Active Learning
Alge-Tiles: Grades 7–11 (Ages 12–16+)

Depth Resource

Physical Characteristics:
90 pages, binder

Annotation:
This resource provides hands-on experience by using algebra tiles to help students develop an understanding of ratios, integers, polynomials, and factoring and solving equations. It provides ideas for teachers on how to help students use algebra tiles and the accompanying activity sheets. Each topic includes teacher notes, student blackline master activity sheets and answers for all activities.

Comments:
- Algebra tiles are not included.
- This resource is primarily for Pure Mathematics 10 but can also be used in Applied Mathematics 11 and Pure Mathematics 11.
- The number concepts and number operations outcomes addressed in this resource are in the Grade 7 to Grade 9 curriculum, not the Grade 10 curriculum.

Cautions:
- Some sections of the binder are more suitable for prerequisite studies in Grade 7 to Grade 9.

Audience: General

Cluster(s):

Applied	**A1**	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**	**A8**	**A9**
Common	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**			
					✓				
Pure	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**	**P9**
	✓		✓	✓					

Course(s):

	10	11	12
Applied Mathematics		✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓						

Publisher: Exclusive Educational Products
Distributor: Exclusive Educational Products
243 Saunders Road
BARRIE ON L4M 6E7
Phone: (705) 725-1166
Fax: (705) 725-1167

Copyright: 1991

Title: Alge-Tiles: Grades 7–11 (Ages 12–16+)

Est. WCP Price(s): $34.95

Explore Quadratic Functions with the TI-83 or TI-82

Annotation:
This manual can be used as either a student or a teacher resource for applying graphing calculator technology to the exploration of quadratic functions and equations. It contains concise and precise instructions on relevant keying sequences. There are many "window" diagrams showing input and output screens. Problems posed relate to real-world situations and provide ample opportunities for discussion, exploration and extension of a variety of situations beyond the routine.

Depth Resource

Physical Characteristics:
120 pages, softcover

Author(s):
Alexander, B.

Cautions:
- The resource uses keying sequences that are specific to the TI-83 and TI-82 models of calculator.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
					✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓					

Course(s):

	10	11	12
Applied Mathematics		✓	
Pure Mathematics		✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probabilit	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1997
ISBN: 0969698143
Title: Explore Quadratic Functions with the TI-83 or TI-82
Est. WCP Price(s): $17.95

Exploring Functions with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Geometer's Sketchpad
• The Geometer's Sketchpad (Macintosh Version 3)
• The Geometer's Sketchpad (Windows Version 3.03)

Depth Resource

Physical Characteristics:

• Macintosh Version: Three 3.5" discs; one binder with User Guide and Reference Manual, 242 pages, softcover; Teaching Notes, 78 pages; Macintosh Quick Reference; one videocassette
• Windows Version: Two 3.5" discs; one binder with User Guide and Reference Manual, 240 pages, softcover; Teaching Notes, 78 pages; Windows Quick Reference; one videocassette

Annotation:
This resource is designed as a tool for teaching and exploring geometrical concepts. It allows students to manipulate geometrical figures with a hands-on approach. The sketchpad models geometry in two linked views. Sketches depict concrete geometry and emphasize spatial reasoning, while scripts describe constructions verbally and abstractly. The program allows for the construction, labelling, measurement and manipulation of any geometric figure, as well as the exploration of geometry concepts taught in Grade 7 through Grade 11. For high school, the primary uses are in Pure Mathematics 10 and 11, although the program can be adapted to solve design and layout problems in Applied Mathematics 10 and 11. The user guide and reference manual provide adequate instruction for learning to use the program. The teaching notes and sample activities provide suggestions for classroom use. Several sample investigations, explorations, demonstrations and construction activities on a wide range of geometry topics are included.

Comments:
• This resource can have greater applications as the user becomes more familiar with the program.
• The videocassette supports both Macintosh and Windows.

System Requirements:
• Macintosh: minimum of a Macintosh Plus, with 1 MB RAM and System 6.0 or higher. Recommended is a system with 4 MB RAM and System 7.0 or higher.
• Windows 3.1: Windows 3.1 in enhanced mode, 386/33 MHz, 4MB RAM, hard drive.
• Windows 95: 486/50 MHz, 8MB RAM, hard drive. The use of a Pentium processor and 16 MB RAM is recommended.

Cautions:
• The program defaults to inches, but it can be set to centimetres.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
	✓		✓						
Common	C1	C2	C3	C4	C5	C6			
	✓				✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
					✓				

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓	✓	✓	✓

Strand/Substrand(s):

Number		**Patterns and Relations**			**Shape and Space**			**Statistics and Probability**	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
					✓	✓	✓		

Publisher: Spectrum Educational Supplies Ltd.
Distributor: Spectrum Educational Supplies Ltd.
125 Mary Street
AURORA ON L4G 1G3
Phone: (905) 841-0600
Fax: (905) 727-6265
Internet: http://www.spectrumed.com/

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Component Titles:	**Est. WCP Price(s):**
• The Geometer's Sketchpad (Macintosh Version 3)	$274.95
• The Geometer's Sketchpad (Windows Version 3.03)	$274.95

Geometry Blaster (Windows / Macintosh CD-ROM Version)

Depth Resource

Physical Characteristics:
One CD-ROM

Annotation:
This CD-ROM package includes lessons, activities and games to teach and reinforce geometric concepts. It uses a three-level approach, allowing a student to progress at a beginning, an intermediate or a mastery level. In each of the individual lessons there are three sections: teach, practise and apply. The resource is primarily designed for individual student use — drill, practice, recreation and enrichment. The ten main topics explored are: points and lines, triangles, polygons and quadrilaterals, similarity, circles, perimeter and area, solids in 3-D, coordinate geometry, transformational geometry, and logical reasoning and proof. The program is interactive and requires decision making and creative thinking by students.

Comments:
- The resource is most useful for Grade 10.
- The resource has multiple levels, a good glossary and tutorial lessons to support the games.

System Requirements:
- Macintosh: System 7.0 or higher, 8 MB RAM.
- Windows 3.1: 386/33 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.
- Windows 95: 486/50 MHz, 8 MB RAM, 256 super VGA or better colour monitor, sound and graphics cards, CD drive and a mouse are required. A Pentium processor and a printer are recommended.

Cautions:
- There is minimal emphasis on real-life problem solving.
- The teacher has limited records with which to check student progress.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
	✓		✓		✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓		✓				

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓			✓	✓	✓		

Publisher: Davidson & Associates, Inc.
Distributor: Davidson & Associates, Inc.
P.O. Box 2961
19840 Pioneer Avenue
TORRANCE CA 90503
Phone: (310) 793-0600, ext. 1291
Fax: (310) 793-0601
Internet: http://www.education.com/

Copyright: 1996
ISBN: 0784910634
Title: Geometry Blaster (Windows / Macintosh CD-ROM Version)
Est. WCP Price(s): $79.95

Programming and Programs for the TI-82 Graphics Calculator

Teacher Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	

Common	C1	C2	C3	C4	C5	C6
			✓	✓	✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns aud Relatious			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

PURE MATHEMATICS 11
LEARNING AND TEACHING RESOURCES

Secondary Math
- Secondary Math Lab Toolkit (Macintosh Version)
- Secondary Math Lab Toolkit (Windows Version)

Depth Resource

Physical Characteristics:
- Macintosh Version: Three 3.5" discs and User's Guide, 128 pages, softcover
- Windows Version: Five 3.5" discs and User's Guide, 128 pages, softcover

Author(s):
Bedoya, J.Z. et al.

Annotation:
The toolkit contains graphical tools for algebra, geometry, data analysis and probability. A text editor, function editor, spreadsheet editor and matrix editor are linked. The graphs are clear and may be transformed in a variety of ways. Probability models use dice and spinners. A visual representation of algebra tiles is included.

Comments:
- Experienced users will be able to use the resource more profitably than beginners.
- There is a high level of linking among all tools within the toolkit.
- The resource provides methods of transforming functions from symbolic editor to graphs and vice versa.

System Requirements:
- Macintosh: minimum of a Macintosh LC II, with 6 MB RAM and System 7.0 or higher. Recommended is a PowerMac system with 8 MB RAM and System 7.5 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 486/33 MHz, 12 MB RAM, hard drive.
- Windows 95: 486/50 MHz, 12 MB RAM, hard drive. The use of a Pentium processor with 16 MB RAM is recommended.

Cautions:
- The resource provides methods of transforming relations only from within the symbolic editor, but not from graphical forms.
- The algebra tiles representations are very limited and are harder to use and less flexible than the concrete tiles.
- The tutorial materials may be insufficient for users of the toolkit.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
						✓		✓	✓
Common	C1	C2	C3	C4	C5	C6			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓		✓	✓	✓	✓	✓	✓

Course(s):

	10	11	12
Applied Mathematics			✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
	✓	✓	✓	✓		✓	✓	✓	✓

Publisher: Prentice Hall, Inc.
Distributor: Prentice Hall Ginn Publishing Co.
1870 Birchmount Road
SCARBOROUGH ON M1P 2J7
Phone: (416) 293-3621
Fax: (416) 297-2601
Internet: http://www.prenhall.com/

Copyright:	ISBN:	Component Titles:	Est. WCP Price(s):
1998	0134330439	• Secondary Math Lab Toolkit (Macintosh Version)	$137.95 (Single User Version) $499.95 (Site License)
1998	0134330447	• Secondary Math Lab Toolkit (Windows Version)	$137.95 (Single User Version) $499.95 (Site License)

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Functions

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
		✓			✓				
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1991
ISBN: 0969524404
Title: Using the TI-81 Graphics Calculator to Explore Functions
Est. WCP Price(s): $8.95

What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator

Depth Resource

Physical Characteristics:
48 pages, softcover

Author(s):
Alexander, B.

Annotation:
This resource explores the straight line, using the TI-81 graphics calculator. It shows students how to plot linear equations, how to make changes to the variable, and uses the question: "what if ...?" to pose multiple problems within a single context. Students are encouraged to compare their answers and to predict outcomes.

Comments:
- The resource encourages students to use a prerecorded program to graph linear functions of the form $Ax + By + C = 0$, rather than use pencil and paper methods to rewrite the function in the form $y = mx + b$.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- This "how to" resource is dependent upon the TI-81 calculator.
- The resource does not cover the line of best fit in any form.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Bob Alexander Publishing Ltd.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 0969698100
Title: What If...?: The Straight Line: Investigations with the TI-81 Graphics Calculator
Est. WCP Price(s): $12.30

WCP

Exploring Functions with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
						✓		✓	

Annotation:
This resource contains exercises and investigations that are suitable for a wide range of student abilities. It acts as a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The resource uses keying sequences that are specific to the TI-82 model of calculators.
- Modifications of the sequences for other Texas Instruments calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
			✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1993
ISBN: 1895997003
Title: Exploring Functions with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

Exploring Statistics with the TI-82 Graphics Calculator

Depth Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-82 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line. The median–median line is used in several examples, but there is no attempt to explain how this line differs from the regression line of y on x, nor to explain the advantages of using the median–median line. Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
			✓			✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓					✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualizatio
✓	✓	✓	✓	✓	✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 189599702X
Title: Exploring Statistics with the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

WCP

Programming and Programs for the TI-82 Graphics Calculator

Teacher Resource

Physical Characteristics:
64 pages, softcover

Author(s):
Kelly, B.

Annotation:
This teacher resource provides the keystrokes for programming TI-82 calculators and provides explanations and example programs. This resource would be useful for TI-82 users who are interested in programming skills.

Comments:
- Teachers may wish to compare the programming of the graphing calculator with the programming of spreadsheets for the problem-solving activities.
- Teachers should determine under what conditions programs, once written, can be used by students. Some jurisdictions allow students to use graphing calculator programs written by others, while some do not.

Cautions:
- This resource is specific to programming TI-82 calculators only. Modifications of the sequences for programming other Texas Instruments calculators are possible, but modifications for programming calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓					✓	✓	

Common	C1	C2	C3	C4	C5	C6
			✓	✓	✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
			✓	✓		✓			

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
			✓		✓	

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
		✓	✓	✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1994
ISBN: 1895997011
Title: Programming and Programs for the TI-82 Graphics Calculator
Est. WCP Price(s): $14.60

RADE (Radian Protractor and Teacher's Guide)

Depth Resource

Physical Characteristics:
One Radian Protractor and Teacher's Guide, 20 pages, loose, all in a softcover folder

Author(s):
Gagnon-Messier, D.; Forget, R.

Annotation:
The RADE is a circular protractor with scales in radians and decimals of a radian, π radians and fractions of π radians, as well as degrees. The accompanying teacher's guide explains the use of the protractor and provides overheads and question/answer worksheets for student use to reinforce concepts.

Comments:
- This resource is available in English and in French.
- The use of this resource is primarily limited to Pure Mathematics 12, outcomes P8–1 and P8–2, with a limited applicability to cluster C3 in Pure Mathematics 10 and Applied Mathematics 10.

Cautions:
- This resource is often marketed as part of a kit that contains other elements. The other components of the kit were either **not approved** as WCP resources for Grade 10 to Grade 12, or considered as **more appropriate for Grade 7 to Grade 9**.
- The approved resource consists **only** of the student protractor and the accompanying print guide.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
			✓			

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
								✓	

Course(s):

	10	11	12
Applied Mathematics	✓		
Pure Mathematics	✓		✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓		✓		✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓	✓	✓			

Publisher: Société RADE Enr.
Distributor: Curriculum Innovations
Box 48, Site 3, RR4
STONY PLAIN AB T7Z 1X4
Phone: (403) 963-5992
Fax: (403) 963-5981

Title: RADE (Radian Protractor and Teacher's Guide)
Est. WCP Price(s): $10.00

PURE MATHEMATICS 12
LEARNING AND TEACHING RESOURCES

Secondary Math
- Secondary Math Lab Toolkit (Macintosh Version)
- Secondary Math Lab Toolkit (Windows Version)

Depth Resource

Physical Characteristics:
- Macintosh Version: Three 3.5" discs and User's Guide, 128 pages, softcover
- Windows Version: Five 3.5" discs and User's Guide, 128 pages, softcover

Author(s):
Bedoya, J.Z. et al.

Annotation:
The toolkit contains graphical tools for algebra, geometry, data analysis and probability. A text editor, function editor, spreadsheet editor and matrix editor are linked. The graphs are clear and may be transformed in a variety of ways. Probability models use dice and spinners. A visual representation of algebra tiles is included.

Comments:
- Experienced users will be able to use the resource more profitably than beginners.
- There is a high level of linking among all tools within the toolkit.
- The resource provides methods of transforming functions from symbolic editor to graphs and vice versa.

System Requirements:
- Macintosh: minimum of a Macintosh LC II, with 6 MB RAM and System 7.0 or higher. Recommended is a PowerMac system with 8 MB RAM and System 7.5 or higher.
- Windows 3.1: Windows 3.1 in enhanced mode, 486/33 MHz, 12 MB RAM, hard drive.
- Windows 95: 486/50 MHz, 12 MB RAM, hard drive. The use of a Pentium processor with 16 MB RAM is recommended.

Cautions:
- The resource provides methods of transforming relations only from within the symbolic editor, but not from graphical forms.
- The algebra tiles representations are very limited and are harder to use and less flexible than the concrete tiles.
- The tutorial materials may be insufficient for users of the toolkit.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
						✓		✓	✓

Common	C1	C2	C3	C4	C5	C6

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
		✓		✓	✓	✓	✓	✓	✓

Course(s):

	10	11	12
Applied Mathematics			✓
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
	✓	✓	✓	✓		✓	✓	✓	✓

Publisher: Prentice Hall, Inc.
Distributor: Prentice Hall Ginn Publishing Co.
1870 Birchmount Road
SCARBOROUGH ON M1P 2J7
Phone: (416) 293-3621
Fax: (416) 297-2601
Internet: http://www.prenhall.com/

Copyright:	ISBN:	Component Titles:	Est. WCP Price(s):
1998	0134330439	• Secondary Math Lab Toolkit (Macintosh Version)	$137.95 (Single User Version) $499.95 (Site License)
1998	0134330447	• Secondary Math Lab Toolkit (Windows Version)	$137.95 (Single User Version) $499.95 (Site License)

String Invision Conics Model (includes Teacher's Guide)

Annotation:
This model transfers a beam of light from the overhead projector to the visual representation of a double-napped cone, creating a conic. It is particularly effective in demonstrating the cases involving degenerate conics.

Comments:
• The model is intended as a teacher demonstration tool, more than as a student exploration tool.

Depth Resource

Audience: General

Physical Characteristics:
One wood/metal/string model; Teacher's Guide, 13 pages, coilbound; overhead materials

Author(s):
Hillacre, D.

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
Common	C1	C2	C3	C4	C5	C6			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
									✓

Course(s):

	10	11	12
Applied Mathematics			
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
✓				✓		✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
							✓		

Publisher: Belle Vue Software

Distributor: Belle Vue Software
25 Windsor Street
SPRUCE GROVE AB T7X 1L6

Phone: (403) 962-9275

Title:
String Invision Conics Model (includes Teacher's Guide)

Est. WCP Price(s):
$80.00

Using the TI-81 Graphics Calculator

Using the TI-81 Graphics Calculator to Explore Functions

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual includes exercises and investigations suitable for a wide range of student abilities. It provides a supplement to a limited number of specific outcomes from the Patterns and Relations strand and is designed for follow-up activities.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The resource uses keying sequences that are specific to the TI-81 graphics calculator.
- Modifications of the sequences for other Texas Instruments graphics calculators are possible, but modifications for calculators made by other manufacturers are problematic.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9

Common	C1	C2	C3	C4	C5	C6
		✓			✓	

Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
				✓		✓		✓	

Course(s):

	10	11	12
Applied Mathematics	✓	✓	
Pure Mathematics	✓	✓	✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualization
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
				✓					

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1991
ISBN: 0969524404
Title: Using the TI-81 Graphics Calculator to Explore Functions
Est. WCP Price(s): $8.95

WCP

Using the TI-81 Graphics Calculator
Using the TI-81 Graphics Calculator to Explore Statistics

Depth Resource

Physical Characteristics:
32 pages, softcover

Author(s):
Kelly, B.

Annotation:
This resource manual uses the TI-81 graphics calculator to explore and develop applications in statistics and probability, through the use of investigations and worked examples. These examples reflect current and real-world situations. The key inputs for data are linked to window illustrations displaying the desired results. However, most student exercises are not calculator specific. There are numerous references to historical influences on various developments in statistics and probability. Exercises allow ample scope for development and extension of the main mathematical processes.

Comments:
- This manual may be used at any level where statistics or probability components are taught.

Cautions:
- The TI-81 calculator is no longer sold in stores, but students may already have access to one.
- The line of best fit is defined as the line that has the least squares sum of the vertical residuals. Strictly speaking, this line is the regression line of y on x, rather than the least squares best-fit line.
- There is no reference to the median–median line.
- Additional resources are needed to cover the line based on the least squares sum of the shortest distances.
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.

Audience: General

Cluster(s):

Applied	A1	A2	A3	A4	A5	A6	A7	A8	A9
		✓		✓					
Common	C1	C2	C3	C4	C5	C6			
						✓			
Pure	P1	P2	P3	P4	P5	P6	P7	P8	P9
							✓		

Course(s):

	10	11	12
Applied Mathematics	✓	✓	✓
Pure Mathematics			✓

Mathematical Process(es):

Communication	Connections	Estimation and Mental Math	Problem Solving	Reasoning	Technology	Visualizatio
					✓	✓

Strand/Substrand(s):

Number		Patterns and Relations			Shape and Space			Statistics and Probability	
Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty
								✓	✓

Publisher: Brendan Kelly Publishing Inc.
Distributor: Addison-Wesley Longman Ltd.
26 Prince Andrew Place
P.O. Box 580
DON MILLS ON M3C 2T8
Phone: (416) 447-5101
Fax: (800) 465-0536; (416) 443-0948
Internet: http://www2.awl.com/corp/

Copyright: 1992
ISBN: 0969524412
Title: Using the TI-81 Graphics Calculator to Explore Statistics
Est. WCP Price(s): $8.95

TITLE LISTING

TITLE / SERIES	COURSE(S)
Addison-Wesley Mathematics 10 (Western Canadian Edition) • Student Text • Independent Study Guide • Teacher's Resource Book (includes CD-ROM) • Template and Data Kit (includes Teacher's Guide and CD-ROM, Version 1.0)	Pure Mathematics 10
Addison-Wesley Mathematics 11 (Western Canadian Edition) • Student Text	Pure Mathematics 11
Active Learning Alge-Tiles: Grades 7–11 (Ages 12–16+)	Applied Mathematics 11 Pure Mathematics 10 / 11
Explore Quadratic Functions with the TI-83 or TI-82	Applied Mathematics 11 Pure Mathematics 11
Exploring Functions with the TI-82 Graphics Calculator	Applied Mathematics 10 / 11 Pure Mathematics 10 / 11 / 12
Exploring Statistics with the TI-82 Graphics Calculator	Applied Mathematics 10 / 11 / 12 Pure Mathematics 10 / 12
Geometer's Sketchpad • The Geometer's Sketchpad (Macintosh Version 3) • The Geometer's Sketchpad (Windows Version 3.03)	Applied Mathematics 10 / 11 Pure Mathematics 10 / 11
Geometry Blaster (Windows / Macintosh CD-ROM Version)	Applied Mathematics 10 / 11 Pure Mathematics 10 / 11
MATHPOWER 10 (Western Edition) • Student Text • Teacher's Resource • Computer Data Bank (Teacher's Resource and Data Disk) • Computerized Assessment Bank	Pure Mathematics 10
Programming and Programs for the TI-82 Graphics Calculator	Applied Mathematics 10 / 11 / 12 Pure Mathematics 10 / 11 / 12
RADE (Radian Protractor and Teacher's Guide)	Applied Mathematics 10 Pure Mathematics 10 / 12
Box Cars & One-Eyed Jacks: Math Games for Kids Radical Math: Math Games Using Cards and Dice (Volume VII) (Grades 7 – 12)	Applied Mathematics 10 Pure Mathematics 10

TITLE LISTING

TITLE / SERIES	COURSE(S)
Secondary Math • Secondary Math Lab Toolkit (Macintosh Version) • Secondary Math Lab Toolkit (Windows Version)	Applied Mathematics 12 Pure Mathematics 10 / 11 / 12
String Invision Conics Model (includes Teacher's Guide)	Pure Mathematics 12
Using the TI-81 Graphics Calculator Using the TI-81 Graphics Calculator to Explore Functions	Applied Mathematics 10 / 11 Pure Mathematics 10 / 11 / 12
Using the TI-81 Graphics Calculator Using the TI-81 Graphics Calculator to Explore Statistics	Applied Mathematics 10 / 11 / 12 Pure Mathematics 12
What If ...?: The Straight Line: Investigations with the TI-81 Graphics Calculator	Applied Mathematics 10 / 11 Pure Mathematics 10 / 11
What If ...?: The Straight Line: Investigations with the TI-82 Graphics Calculator	Applied Mathematics 10 / 11 Pure Mathematics 10

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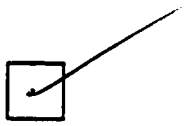

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