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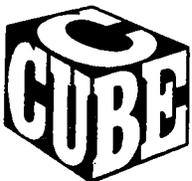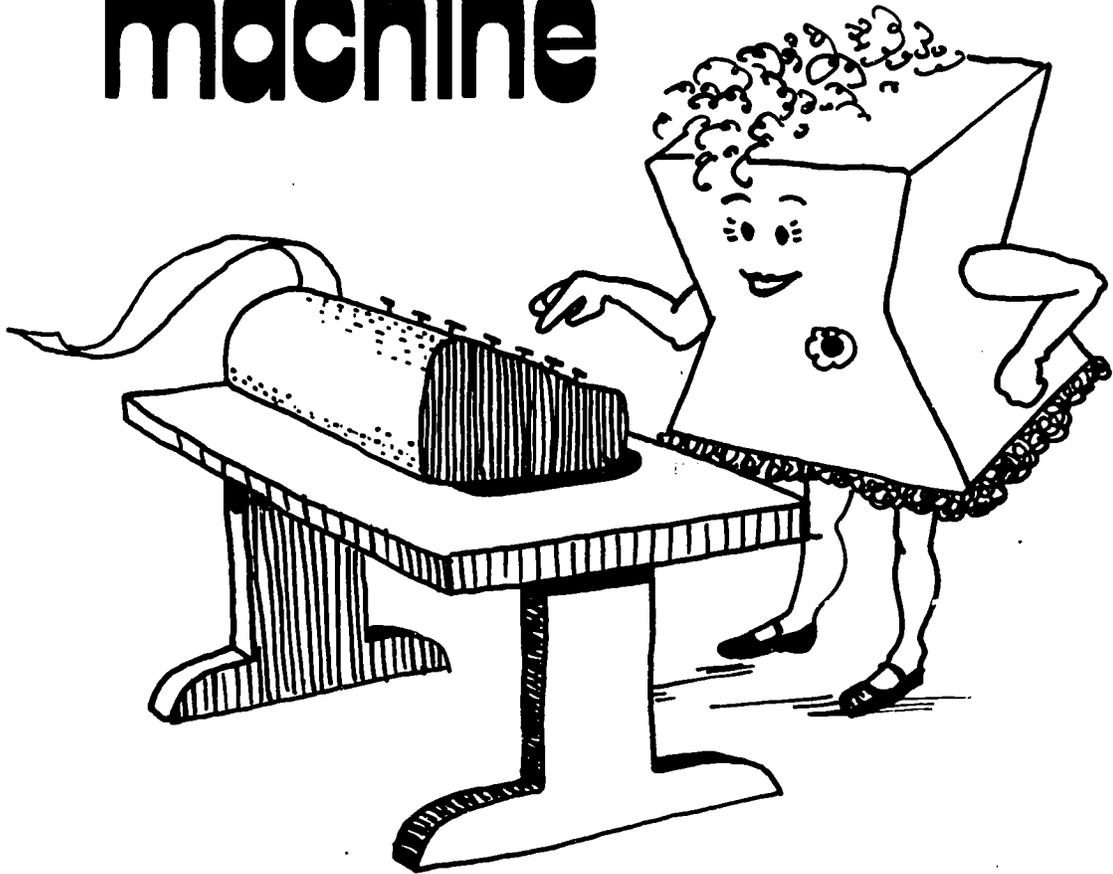IDENTIFIERS   California Business Education Program Guide

ABSTRACT
                This secondary unit of instruction on the adding
machine is one of sixteen Common Core Units in Business Education
(CCUBE). The units were designed for implementing the sixteen common
core competencies identified in the California Business Education
Program Guide for Office and Distributive Education. Each
competency-based unit is designed to facilitate personalized
instruction and may include five types of materials: (1) a teacher's
guide, which provides specific strategies for the units as well as
suggestions for the use of the materials; (2) a student manual, which
directs the student through the unit's activities and jobs and brings
the student to the competency level for the unit; (3) working papers,
which are consumable materials used in completing the jobs and
activities described in the student manual; (4) pre/post tests and
quizzes; and (5) suggested electronic media. A strategies manual and
the California Business Education Program Guide and supplements are
also available--see note. (LRA)

THE
HOW AND WHY
OF THE
adding
machine

COMMON
CORE
UNITS IN
BUSINESS
EDUCATION

2

ADDING MACHINE

Written by

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Instructor

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El Toro, California

TABLE OF CONTENTS

*NOTE: READ CAREFULLY BEFORE YOU START!

Dear Student:

Wouldn't it be wonderful to have a skill to l   rn money and to help the business world?

The business world needs employees and wor   know how to use the adding machine.

By the time you finish this Student Manual and Worn   apers you will be able to add, subtract, multiply and determine decimal placement while using tne correct finger position on the 10-key adding machine.

Read carefully each sheet in the Student Manual t: , REINFORCEMENT SHEET. They teach you what you need to know and the activities that follow give you practice on what was taught on the REINFORCEMENT SHEET. *After you have successfully completed each activity and have* **DO!** *received your teacher's signature, as indicated on page 1 of your Working Papers, return back to your Student Manual and complete the next page.* Every time you see a [STOP] sign you should stop and get the progress quiz indicated.

Please do not write in the Student Manual. All answers should be placed on Working Papers. Make sure you staple tapes from each activity on the appropriate slot on pages 6 and 7 of your Working Papers.

It is important for you to concentrate because you will not only be tested on the material but it will help you operate the adding machine with greater speed.

Good luck! Work hard, and have fun while completing the Adding Machine requirements.

Sincerely yours,

Ima Teacher

Ima Teacher

REINFORCEMENT SHEET

MACHINE PARTS

MACHINE PARTS REVIEW

There are many manufacturers of adding machines just as there are many manufacturers of automobiles.

Some of the parts of the 10-key adding machine that you will need to learn are shown in the diagram below.
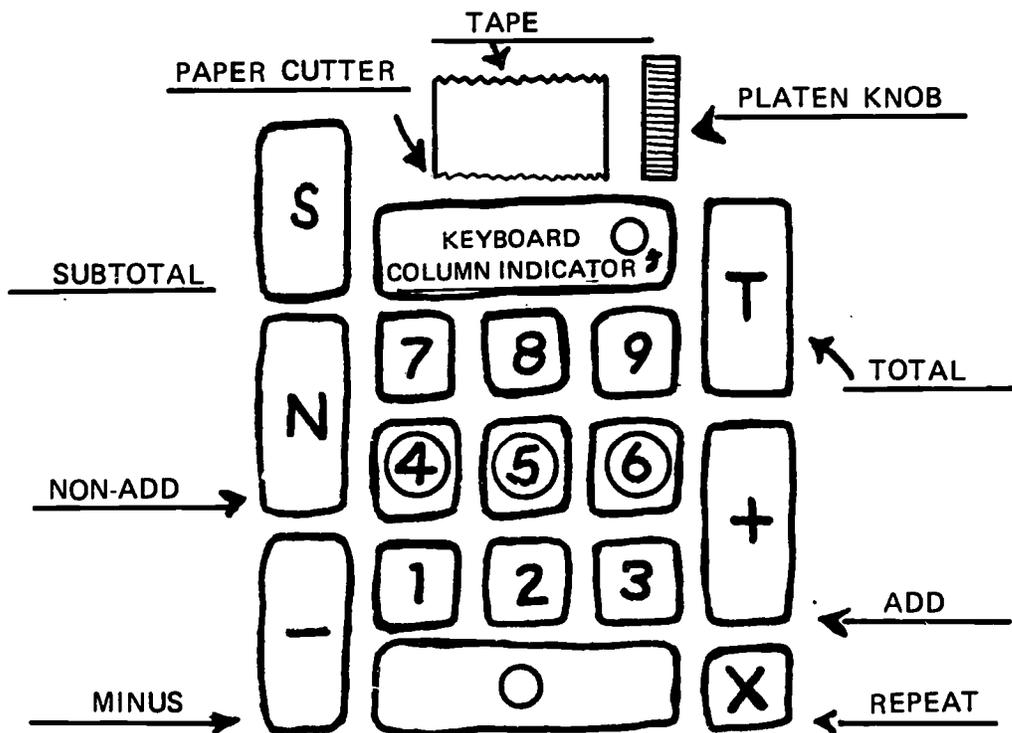
Step 1. Study the diagram above and locate the parts on your machine. They may be in a different place because of the many brands and models.

Step 2. Write the names of the machine parts on Page 2 of your Working Papers.

REINFORCEMENT SHEET

ACTIVITY 1
Machine Parts

Can you write the ten names of the machine parts below *without* looking at the answers? Do this on Page 2 of your Working Papers. Make sure you cover the answers you wrote on Step 2. *Do Not Write* in this book! (Activity 1)
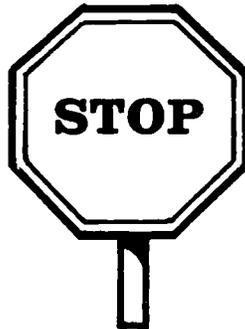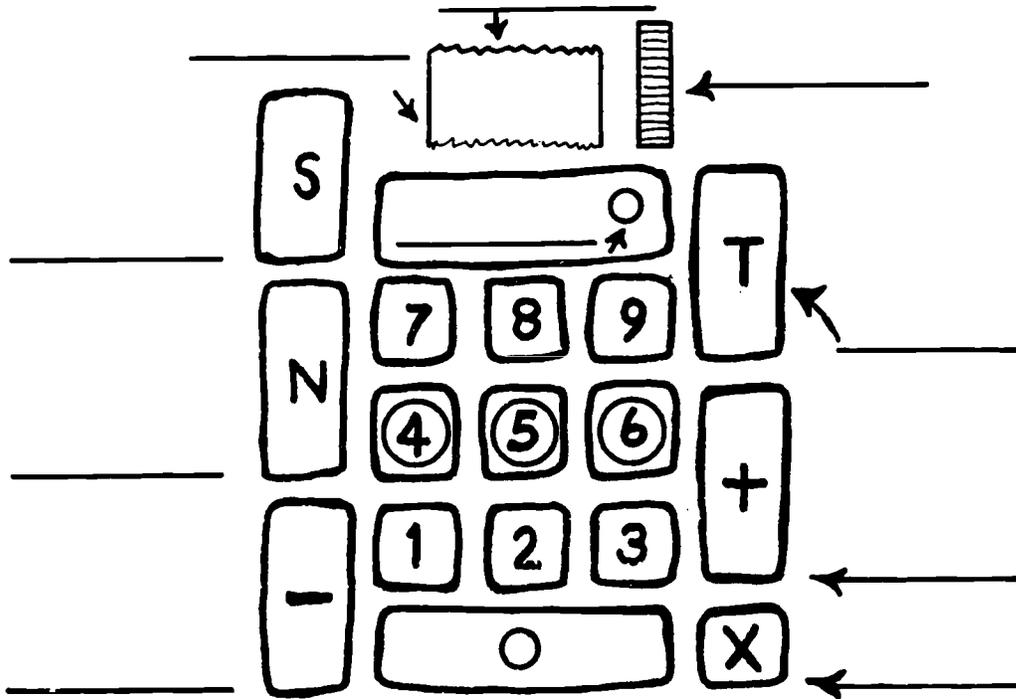
Review Parts and then get
Quiz 1 from your Instructor.

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REINFORCEMENT SHEET

TOUCH SYSTEM

DESK ARRANGEMENT AND HOME ROW KEYS
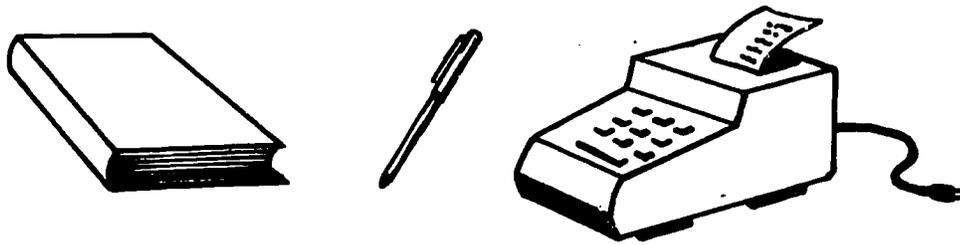
1. Is your book to the left, machine on the right, and pen or pencil in between? Do it this way even though you are left-handed!

2. Is the paper tape in your machine and is the electric cord plugged into the machine and into the wall outlet?

3. Is your left hand on the book to guide your eyes, your right hand on the home row keys, (see diagram below and directions on next page), your feet flat on the floor, and your body seated comfortably in the chair?

4. Do you know where the Plus Key and the Total Key are?

IF YOU DO, BEGIN!

Home Row Keys

INDEX MIDDLE RING LITTLE

8
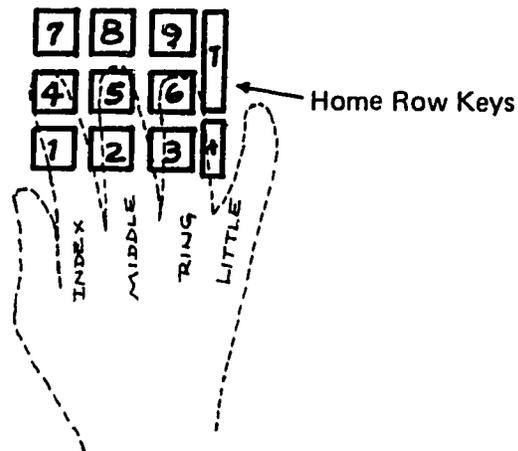
REINFORCEMENT SHEET

┌───┐
│ **Operation Of The Home Row** │
│ **And Total Key** │
└───┘

HOW TO OPERATE HOME ROW KEYS AND TOTAL KEY

1. Curve the fingers on your right hand and put your index finger on 4, your middle finger on 5, and your ring finger on 6. They should have a special feel to them. Do they?

2. DO NOT rest your hand on the bottom of the adding machine while you operate the machine — POOR HABIT!

3. Strike the total key with the little finger once to show a T or *. If a figure prints on the tape strike the T or * again.

Problem for Practice

1. Strike the 4 key with your index finger and strike the plus key with your little finger.

2. Strike the 5 key with your middle finger and strike the plus key with your little finger.

3. Strike the 6 key with your ring finger and strike the plus key with your little finger, then strike the total key with your little finger.

4. Is your answer .15?   YES   (Great)
                       NO   (Repeat)
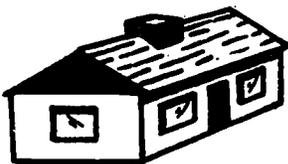
**There's no place
like home...**

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PRACTICE SHEET

ACTIVITY 2
Adding And Total Key

1. Use the roller knob to roll up your tape so you can write your name, activity number, and date at the top of the tape.

2. *Begin every problem with a clear T or a *.*

✓ 3. Do each problem below *twice.* Do them over until you have two correct answers in a row on the tape. Circle both correct problems together and then continue to the next problem. ✓

4. If there is *NO decimal* in your problem — *DO NOT* put a decimal in your answer!!!

5. NO *LOOKING* AT YOUR MACHINE!

. . . .

(1)		(2)		(3)	
6	Strike 6, then plus	5		45	
5		4		55	
4		6		56	
66	Strike 6 then 6, plus	65		456	
54		56		654	
44		46		564	
179		182		1830	

(4)		(5)	
465		564	
645		445	
546		546	
4465		645	
5664		556	
6456		654	
18241		3410	

GO!

Read↘

TEAR OFF YOUR TAPE AND FOLD IT. STAPLE TAPE TO THE APPROPRIATE SPACE MARKED ON PAGE 6 OF YOUR WORKING PAPERS.

<u>PLEASE DO THIS FOR EACH ACTIVITY.</u>

DID YOU GET TWO CORRECT ANSWERS IN A ROW AND CIRCLE THEM? IF YOU DID, GO ON.

10

REINFORCEMENT SHEET

Up Reaches To The 7, 8, And 9 Keys

*Most machines print two decimal places. That is because most of the work in the business world is with dollars and cents.

✓ *When you are adding whole numbers, pretend the decimal mark IS NOT there.

1. Is your desk arranged okay? (Check Page 5 again)

2. Do you know where the 7, 8, and 9 keys are? IF YOU DO, BEGIN!
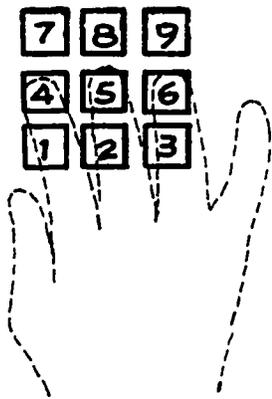
Reach up ↑ from the 4 to 7

Reach up ↑ from the 5 to 8

Reach up ↑ from the 6 to 9

Each finger is used to press the key above without LOOKING
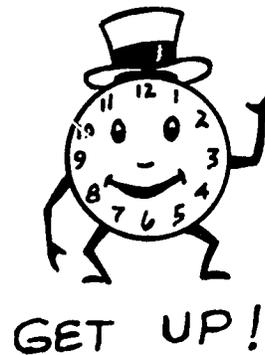
GET UP!

. . . .

1. Curve the fingers of your right hand and put them on the home row.

2. Strike the total key with the little finger once to show a T or a *. If a figure prints on the tape, strike the T or a * again.

3. Strike the 7 key with your index finger and strike the plus key with your little finger.

4. Strike the 8 key with your middle finger and strike the plus key with your little finger.

5. Strike the 9 key with your ring finger and strike the plus key with your li e finger and then strike the total key with your little finger.

6. Is your answer 24?   YES (Great)   NO (Repeat)

✓ REMEMBER TO COME HOME IMMEDIATELY AFTER STRIKING THE KEY ABOVE THE HOME KEY!

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PRACTICE SHEET

ACTIVITY 3
Practice On 7, 8, And 9 Reaches

1.   Write your name, activity number, and date at the top of the tape.

2.   Begin every problem with a clear T or a *.

3.   Do each problem below *twice*. Do them over until you have two correct answers in a row on the tape. Circle both correct problems together then continue to the next problem.

4.   NO *LOOKING* AT YOUR MACHINE!

. . . .

(1)	(2)	(3)	(4)
9	5	47	474
8	8	58	585
7	5	69	696
4	6	74	747
7	9	85	858
4	6	96	969
39	39	429	4329

(5)
```
    695
    586
    475
   8584
   7658
   5574
  23572
```

TEAR OFF YOUR TAPE AND FOLD IN LENGTHS AS LONG AS THIS PAPER AND STAPLE IT TO PAGE 6 OF YOUR WORKING PAPERS.
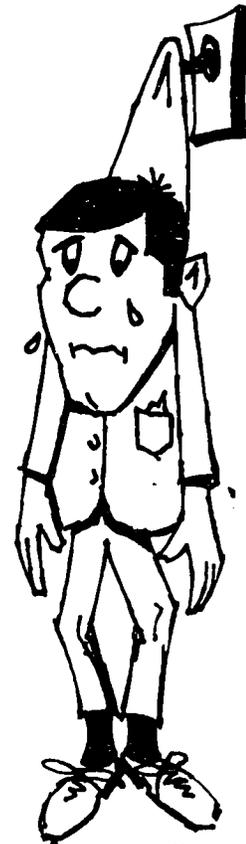
Don't get "hung-up—practice!

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ADDING MACHINE
STUDENT MANUAL PAGE 10

SKILL DEVELOPMENT SHEET

Down Reaches To 1, 2, And 3 Keys

Most of the time you will be verifying — checking the answers another employee or worker got when he did the job. This is very valuable work in the business world.

1. Is your desk arranged okay?

2. Do you know where the 1, 2, and 3 keys are? IF YOU DO, BEGIN!
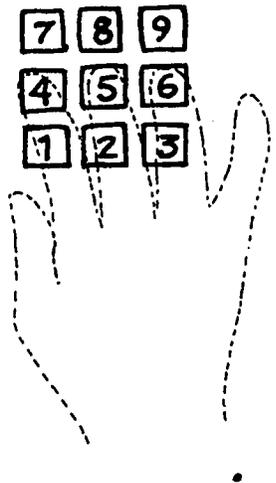
Reach down ↓ from 4 to 1

Reach down ↓ from 5 to 2

Reach down ↓ from 6 to 3

Each finger is used to press the key below without LOOKING!

1. Curve the fingers of your right hand and put them on the home row.

2. Strike the total key with the little finger once to show a T or a *. If a figure prints on the tape, strike the T or * again.

3. Strike the 1 key with your index finger and strike the plus key with your little finger.

4. Strike the 2 with your middle finger and strike the plus key with your little finger.

5. Strike the 3 key with your ring finger and strike the plus key with your little finger and then strike the total key with your little finger.

6. Is your answer 06?   YES (Great)   NO (Repeat)

REMEMBER TO COME HOME IMMEDIATELY AFTER STRIKING THE KEY BELOW THE HOME KEY!

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ACTIVITY 4

Practice On 1, 2, And 3 Keys

1. Write your name, activity number, and date at the top of the tape.

2. Begin every problem with a clear T of a *.

3. Do each problem below *twice*. Do them over until you have two correct answers in a row on the tape. Circle both correct problems together then continue to the next problem. ✓

4. NO *LOOKING* AT YOUR MACHINE!

. . . .

(1)	(2)	(3)	(4)
1	5	41	141
2	2	52	525
3	5	63	636
4	6	14	414
1	3	25	252
4	6	36	363
15	27	231	2331

(5)
```
    524
    541
    635
   4178
   5287
   6393
  17558
```

REMEMBER TO TEAR OFF YOUR TAPE, FOLD IN PROPER LENGTHS AND STAPLE TO PAGE 6 OF YOUR WORKING PAPERS.

KEEP THE TAPES UNTIL YOU FINISH THIS LAP.

DID YOU GET TWO CORRECT ANSWERS IN A ROW AND CIRCLE THEM?
IF YOU DID – GO ON!

Zero Key

Luckily all 10-key adding machines have the same standard keyboard except for the zero key. On some machines the zero key will be below

STRIKE YOUR ZERO KEY WITH YOUR THUMB – TRY IT!

① ② ③
O
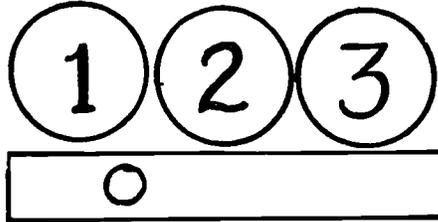
or below and alongside

① ② ③
O

I Understand

15
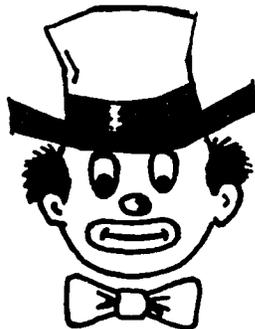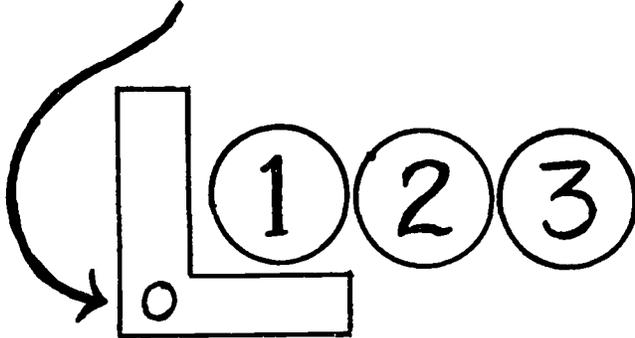
PRACTICE SHEET

## ACTIVITY 5
Practice On Zero Key

---

1. Write your name, activity number, and date at the top of the tape.

2. Begin every problem with a clear T or a *

3. Do each problem below *twice*. Do them over until you have two correct answers in a row on the tape. Circle both correct problems together then continue to the next problem. ✓

4. NO *LOOKING* AT YOUR MACHINE!

. . . .

(1)	410	(2)	102	(3)	301
	520		405		604
	630		708		907
	407		203		470
	580		506		528
	690		890		639
	3300		2814		3449

(4)	145	(5)	120
	206		364
	365		578
	785		1934
	896		2783
	490		3056
	2887		8835

REMEMBER TO TEAR OFF YOUR TAPE AND FOLD IN LENGTHS AS
LONG AS THIS PAPER FOR EACH ACTIVITY. STAPLE IT TO PAGE 6
OF YOUR WORKING PAPERS

✓READ!

DID YOU REMEMBER TO LEAVE YOUR DECIMAL OUT OF YOUR
ANSWER IF THERE IS NO DECIMAL IN YOUR PROBLEM?

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Get these down pat!

3 Methods Of Correcting Errors

(1) CORRECTIONS WITH THE CORRECTION KEY OR THE CLEAR LEVER

After you have put a figure into the machine, (*before you strike the plus bar*) you may know immediately that you have hit the wrong key — Simply strike the correction or clear key with your nearest finger . . .

. . . Or if your machine has a lever, you pull it to the right . . .

. . . And now the wrong number is removed and you can put in the right number.

Practice doing the three problems below. *Pretend you catch the error before you hit the plus key.* So you just have to use the correction or clear key.

```
           (a)    5
                 10
       error — 40 (Use clear key)
right number — 10
                 ——
                 25
```

```
    (b)   40
           3 error
           7
          ——
          47
```

```
    (c)   37
          49 error
          17
          ——
          54
```

Corrections, continued:

(2) CORRECTIONS WITH THE MINUS KEY

Can you locate the minus key on your machine? Good! If the minus key is on the right side, strike it with your little finger. If the minus key is on the left side, ask your teacher which finger to use.

758 ←——————— Enter these three figures and strike the plus key
−412 ←——————— Enter these three figures and strike the *minus* key
346 T   Strike the T key to get your answer

After you have hit the plus key, *you may realize* that you have hit a wrong key. Simply put that same figure into the machine and subtract it with the minus key.

Practice doing the problems below making the same errors and correcting them on your tape.

```
82
19
54 error
−  54 error subtracted
45 correct number
146 T
```

```
703
456 error
−  456 error subtracted
645 correct number
821
2169 T
```

```
68
92
44
53 error
−  53 error subtracted
27
231 T
```

No Sweat!

(3) PEN OR PENCIL CORRECTIONS

After you have taken a total, you may find out by checking that you have hit the wrong key. Simply take your pen or pencil and cross out the wrong amount and put the correct amount beside it. next add or subtract the difference from the total.

Practice doing the problems below making the same errors and correcting them on your tape. Don't forget to use a pen or pencil.

195	250	~~168~~ 177	~~4472~~ 4372
357~~9~~	624~~1~~	245	5093
850	583	734	8615
1402 T	1457 T	1147 T	18180 T
2+	3−	9+	100−
1404	1454	1156	18080

ACTIVITY 6
Business World Problems - Addition

DIRECTIONS: You use a deposit ticket to list money which you want to put into your bank account. In order to get the total of your deposit you must add the currency, coins, and checks together. On the following deposit slips add your total deposit.

Do not write on this LAP! Write answers on your Working Papers for Activity 6.

No. 1 — DEPOSITED IN THE ACCOUNT OF

Oma Student
4 Awhile Blvd.
Off-to-work, CA 92666

DATE December 4, 1978

ITEMS RECEIVED FOR COLLECTION OR DEPOSIT ARE CREDITED CONDITIONALLY SUBJECT TO ACTUAL PAYMENT

	DOLLARS	CENTS
CURRENCY	56	00
COIN	2	98
CHECKS LIST SEPARATELY. USE A. B. A. NUMBERS.		
90-1222	43	72
16-1222	286	52
98-1222	189	39
90-2222	12	51
90-1222	89	98
16-1222	78	19
TOTAL $		

PLEASE DO NOT WRITE IN THIS SPACE
VOID
DEPOSIT TICKET, 12

No. 2 — DEPOSITED IN THE ACCOUNT OF

Youra Student
5 Days-a-week Ave.
Up your salary, TN 93143

DATE _____ 19___

ITEMS RECEIVED FOR COLLECTION OR DEPOSIT ARE CREDITED CONDITIONALLY SUBJECT TO ACTUAL PAYMENT

	DOLLARS	CENTS
CURRENCY	29	00
COIN	4	53
CHECKS LIST SEPARATELY. USE A. B. A. NUMBERS.		
16-2222	316	12
90-1222	77	77
90-1222	83	61
16-2212	54	45
16-2211	98	58
76-3232	89	85
90-1222	67	93
51-2222	38	81
TOTAL $		

PLEASE DO NOT WRITE IN THIS SPACE
VOID
DEPOSIT TICKET 12

Check your answer —
Did you do it right?
If not, try again.

2.) $860.65
1.) $759.29

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ACTIVITY 6, Continued:

DIRECTIONS: Many businesses use sales slips to record sales. In order to find the total of
                  a particular sale you must add each item in the amount column. In the two
                  sales slips below, check the existing totals to see if they are correct. This is
                  called *verifying totals.* On page 2 of your Working Papers circle CORRECT
                  or WRONG IN THE SPACE PROVIDED.

No. 3   No. 4

A M Enterprises, Inc.
901 Fifth Street, Clovis, California 93612

DATE	CLERK NO.	HOW SOLD	AMT. REC'O.	AMT. OF SALE
3-12	5	Cash	25.00	21.61

Name *Mr Tom Jones*   No. 319
Address *489 E. Park*
        Villa Park, CA 93410

Quantity	Article	Unit Price	Extension
3	Brooms	1.19	3.57
1	Mop	2.59	2.59
2	Buckets	1.25	2.50
1	Ladder	12.95	12.95

TOTAL → 21 61

X   Charge   C O D   X   Send   Will Call

Name
Address

SALES CHECK 16   MWW

A M Enterprises, Inc.
901 Fifth Street, Clovis, California 93612

DATE	CLERK NO.	HOW SOLD	AMT. REC'O.	AMT. OF SALE
3-12	5	Change		93.70

Name *James Brown*   No. 320
Address *731 Boxer St.*
        Heavyweight, CA 94315

Quantity	Article	Unit Price	Extension
2	Mops	2.59	5.18
2	Ladders	22.95	45.90
3	Shovels	5.69	17.07
1	Hose	6.95	6.95
2	Sprayers	3.00	6.00
2	Buckets	1.25	2.50

TOTAL → 93 70

Cash   X   C O D   Taken   Send   Will Call

Name
Address

SALES CHECK 16   MWW

STAPLE TAPE TO PAGE 6 OF YOUR WORKING PAPERS.

REVIEW FINGER PLACEMENT AND ADD-
ING, THEN GET QUIZ 2 FROM YOUR
INSTRUCTOR.

STOP

REINFORCEMENT SHEET

Minus Key

It is very important that you are able to subtract accurately. Follow these directions and it will be easy.

$$
\begin{array}{r}
134 \\
-114 \\
\hline 20
\end{array}
$$

134 ←———— Enter these three figures and strike the plus key.

−114 ←———— Enter these three figures and strike the minus key.

20 Strike the T key to get an answer.
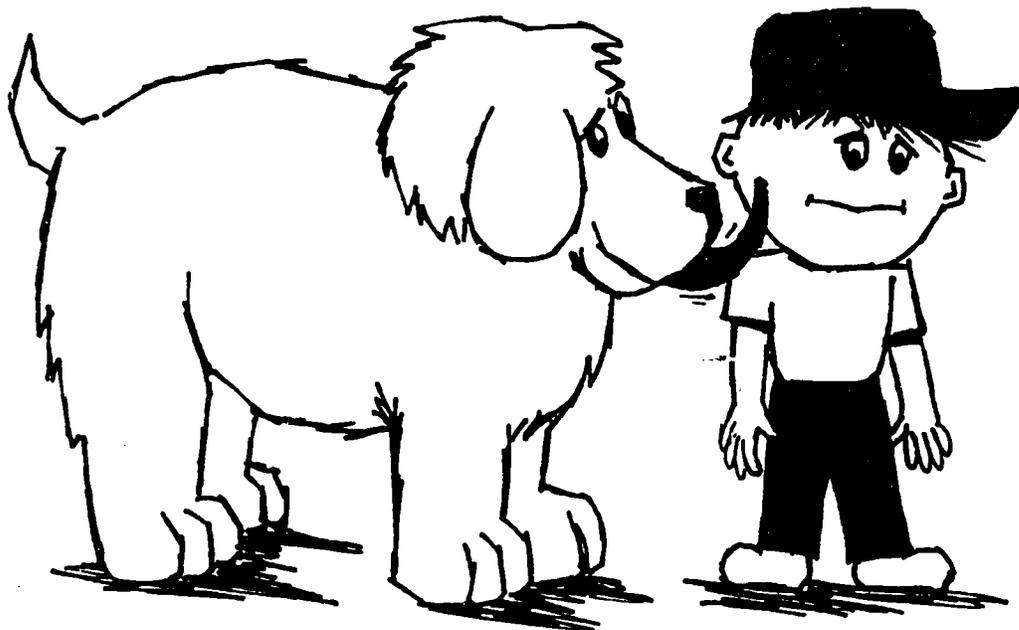
Don't quit ... You've got it licked!

ACTIVITY 7
Practice On Subtraction

1. Remember to check your desk arrangement and write on your tape.

2. What do you begin every problem with? That's right — a T or *.

3. And what else? That's right — NO *LOOKING* AT YOUR MACHINE!

4. If you do not get the answers indicated below each problem, repeat them until you do.

- -

(1) 49
    13—
  654
  328—
  362 Yes? (Great)
        No? (Repeat)

(2) 1,058
    792—
  2,387
    132—
     19
  3,254—
    583
   131 tc Yes? (Great)
           No? (Repeat)

(On a Credit Balance
some machines print
tc, cb or the total is
printed in red)

- -

(3) 44.76
  6.54
  10.75
   .50
  62.87
  25.75
  1.22—
  20.60
  1.25—
  2.64—
 166.66   Yes? (Great)
         No? (Repeat)

(4) 40.76
   .65—
  1.48
  4.44
  50.25—
  6.45
  90.88
 107.89
  1.32—
  7.77
  8.93—
 82.51—
 23.45
 76.82
 216.28 Yes? (Great)
       No? (Repeat)

(5) 11.56—
  14.30—
  50.23
  92.78
 103.47
  1.02—
  8.93—
 103.60
  5.68—
  10.22
   .19—
  34.68
  52.75—
  1.76—
 298.79

REMEMBER TO TEAR OFF YOUR TAPE AND FOLD IN PROPER LENGTHS. STAPLE TAPE TO PAGE 6 OF YOUR WORKING PAPERS.

READ!→ DID YOU NOTICE PROBLEM 2? THERE WAS A CREDIT BALANCE! IF YOU HAVE A QUESTION — ASK YOUR INSTRUCTOR.

ACTIVITY 8
Business World Problem - Subtraction

Your job is to find if the sales in the different departments in a store had an increase or had a decrease from one month to the next.

Remember to put the largest figures first into your machine if it does not have an automatic credit balance. How will you know? Your machine will print a lot of nines like this: 999,997.76. You will always have to remember to put the largest figures first into your machine if it is one that prints nines. If you had more money THIS MONTH than LAST MONTH, then there was an increase. DO NOT WRITE ON THIS PAGE . . . GO TO ACTIVITY 8 IN YOUR WORKING PAPERS AND ✔ FINISH THE FORM GIVEN.

	Last Month	This Month	DIFFERENCE	
			Increase	Decrease
Boys' Clothes	158.60	210.40		
Cosmetics	610.50	520.00		
Hardware	462.70	370.82		
Junior Clothes	206.70	179.80		
Pet	523.00	435.00		
Shoes	894.63	1,062.17		
Snack Bar	93.67	104.62		
Sporting Goods	1,293.44	2,078.56		
Toys	783.40	809.40		
			1,041.41	297.28

WHEN YOU ADD THE NUMBERS IN THE INCREASE COLUMN AND IN THE DECREASE COLUMN AND GET THE SAME ANSWER AS THE ONE GIVEN, YOU MAY ASSUME THAT YOUR WORK IS CORRECT.

REVIEW FINGER PLACEMENT AND SUBTRACTION, THEN GET QUIZ 3 FROM YOUR INSTRUCTOR.

STOP

REINFORCEMENT SHEET

Subtotal Key And Non-Add Key

Can you find the subtotal key on your machine? Good!

You use the subtotal key to find the _total_ at _any time_ in a problem.

The subtotal answer will have an <u>S</u> by it, and the amount _stays_ in your machine until you total. ✓

These two figures equal

20 → Enter these two figures and strike the plus key.

30 → Enter these two figures and strike the plus key and the subtotal key.

Subtotal.

50S → This subtotal answer stays in your machine.

The subtotal plus these two figures equals this subtotal

10 → Enter these two figures and strike the plus key.

40 → Enter these two figures and strike the plus key and the subtotal key.

100S → This subtotal answer stays in your machine.

The above subtotal plus these two figures equals this total

2 → Enter this figure and strike the plus key.

3 → Enter this figure and strike the plus key and the total key.

105T → This total clears the subtotal out of the machine.

MORE PROBLEMS TO HELP YOU LEARN:

(1)	(2)	(3)	(4)
24	245	1462	1.42
37	67	189	6.78
48	32	14	8.20 S
109 S	344 S	15.94	
		3259 S	9.83
52	407		5.55
63	893	207	23.58 S
224 S	1644 S	893	
		4359 T	1.02
76	102		7.83
89	376		32.43 T
389 T	2122 T		

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ACTIVITY 9
Practice On Subtotal And Non-Add Keys

Can you find the Non-Add Key on your machine? Good!

You use the Non-Add to show a figure that you do not want to be added into the total.

The Non-Add figure would have a ＊ or a "N" by it.

A use of the Non-Add Key would be the numbering of your problems. NA by the problems means to strike the N key.

1 * NA   Enter the 1 figure and strike the Non-Add Key with the closest finger . . .
↓   This signifies Problem Number 1.

25   Enter these figures and strike the plus key
30   Enter these figures and strike the plus key
55 T

The 1 figure printed but *did not* add in the total. Right?

. . . .

MORE PROBLEMS TO HELP YOU LEARN:

1 * NA	2 * NA	3 * NA	4* NA
↓	↓	↓	↓
44	673	4789	1.36
52	483	356	.18
87	683	41	.59
93	299	3476	2.13 T
276 T	2138 T	8662T	

Can you use both the subtotal and the non-add keys in the same problem? Let's see if you can!

The following kind of subtotal is used in the business world when you have a problem that is continued on the next page.

(Page 1)   (Page 2)   (Page 3)

  2 * NA   →150 Subtotal again ↗ 425 Subtotal again
           200   450
  50   75   25
 100   425 Subtotal   900 Total
150 Subtotal

(STAPLE YOUR TAPE TO PAGE 7 OF YOUR WORKING PAPERS)

ACTIVITY 10
Business World Problems - Subtotals Repeat Key

Your job is to find the balance after each check has been written or a deposit has been made and record it in the balance column of the check register. DO NOT WRITE ON THIS PAGE ... GO TO ACTIVITY 10 OF YOUR WORKING PAPERS. ✔

The first two lines have been done for you, but please verify them.

✔(PUT THE BALANCE IN YOUR MACHINE FIRST!)

CHECK NO.	DATE	CHECK ISSUED TO	DEPOSITS (Add)		AMOUNT OF CHECK (Subtract)		BALANCE $162.14	
123	10/16	Pacific, Gas, and Elec.			12	03	150	11
124	10/17	Treeland Rental Agency			100	00	50	11
	10/18		350	00				
125	10/19	Beast Bay MUD			26	78		
126	10/22	Catwells			40	00		
127	10/23	Sears Sawbuck Co.			25	67		
128	10/24	TankAmericard	250	00				
129	10/25	Good Care Auto			57	88		
130	10/27	Monkey Wards			37	82		
131	10/30	Noosepaper			2	25	459	71

TOTAL

WHEN YOU HAVE FINISHED ADDING THE DEPOSITS, SUBTRACTING THE CHECKS, AND SUBTOTALING EACH TRANSACTION, AND GET THE SAME ANSWER AS THE ONE ABOVE THE WORD TOTAL, YOU MAY ASSUME YOUR WORK IS CORRECT. STAPLE YOUR TAPE TO PAGE 7 OF YOUR WORKING PAPERS.

STOP REVIEW SUBTOTAL KEY AND NON-ADD KEY, THEN GET QUIZ 4 FROM YOUR INSTRUCTOR.

GR-R-R-EAT

Repeat Key

That's Easy
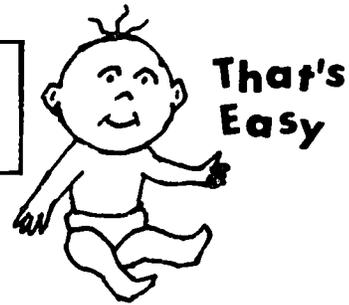
Can you find the repeat key on your machine? Good!

The repeat key is used to multiply in a way that is called repeat addition. It is also similar to the way you have been doing multiplying.

So, let's review and learn the 10-key adding way of multiplying.

By Hand	By Machine

By Hand:

Multiplicand→ 42
Multiplier → × 37
            294
            126
           1554

By Machine:

$$
\left.\begin{array}{l} 42 \\ 42 \\ 42 \\ 42 \\ 42 \\ 42 \\ 42 \end{array}\right\} = 7 \times 42
$$

$$
\left.\begin{array}{l} 420 \\ 420 \\ 420 \end{array}\right\} = 30 \times 42
$$

$$
\overline{1554} \text{ T}
$$

Do the following steps:

1. Clear machine and enter the multiplicand, 42, and lock the repeat key and then strike the add key 7 times with your nearest finger. (The 7 is the first number to the right in the multiplier). You have now multiplied 42 times 7.

2. Strike the zero key and strike the add key 3 times. (The 3 is the second number from the right in the multiplier.) You have now multiplied by 30.

   NOTE: You multiply first by 7 and then by 30 (30 + 7 = 37)

3. Release the repeat key and clear your machine. (On some machines this step is not necessary) (Question? See instructor).

4. Press total key.

5. Did you get 1554? If not, try again!

REINFORCEMENT SHEET

I'm Pete   **I'm Repeat**
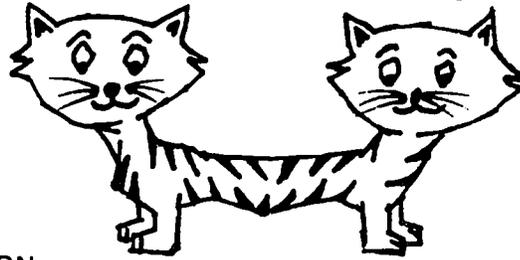
MORE PROBLEMS TO HELP YOU LEARN:

(1) 23   Your tape would have 23 five times and 230 two times.
     x25   (Does it? YES is excellent!) (5 x 23 plus 20 x 23)
     575

(2) 38   Your tape would have 38 two times and 380 four times.
     x42   Does it? (2 x 38 plus 40 x 38)
     1596

(3) 348   Your tape would have 348 five times and 3480 three times.
     x35   Does it?
     12180

(4) 1,761 Your tape would have 1,761 six times, and 17610 four times, and 176,100 one time.
     x146   Does it?
     257106

MORE PROBLEMS TO HELP YOU LEARN MULTIPLYING WITH ZEROS:

By Hand

483
x 205
2415
9660
99015

By Machine

add zero because of the zero in 205 then another zero to move over for the 2 in 205.

483 ⎫
483 ⎪
483 ⎬ → TOP NUMBER
483 ⎪   5 TIMES — 5 x 483
483 ⎭
48300 ⎫ → TOP NUMBER WITH
48300 ⎭   2 ZEROS 2 TIMES =
99015   200 x 483

(1) 241   Your tape would have 2410 five times. Does it? YES is excellent.
     x50
     12050

(2) 1763   Your tape would have 176300 four times. Does it?
     x400
     705200

(3) 2619   Your tape would have 2619 six times and 261900 four times.
     x406   Does it?
     1063314

Did you get the same answers? Yes is excellent! If not, you need to repeat this part before you continue.

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ACTIVITY 11
Practice On Multiplication

1. Remember to check your desk arrangement and write on your tape.

2. Be sure to have that clear signal (T or *) before you start every problem and be sure to use the Non-Add Key to number your problems.

✓3. Because all of these problems are multiplying problems — _remember to clear the machine_ _before you use the total key_.

4. And, of course *NO LOOKING AT YOUR MACHINE!*

(Always Repeat if NO)

1) 47 X 3 is 141	YES?	NO?	**Got it all!**
2) 484 X 6 is 2904	YES?	NO?	
3) 823 X 34 is 27982	YES?	NO?	
4) 674 X 258 is 173892	YES?	NO?	
5) 1,945 X 346 is 672970	YES?	NO?	
6) 245 X 50 is 12250	YES?	NO?	
7) 827 X 604 is 499508	YES?	NO?	
8) 7,163 X 406 is 2908178	YES?	NO?	
9) 6,805 X 73 is 496765	YES?	NO?	
10) 876 X 412 is 360912	YES?	NO?	

REMEMBER TO TEAR OFF YOUR TAPE AND FOLD IN LENGTHS AS LONG AS THIS PAPER FOR EACH ACTIVITY. STAPLE TAPE TO PAGE 7 OF YOUR WORKING PAPERS.

ACTIVITY 12
Business World Problems - Multiplication

Your job is to find out how much inventory is worth that your store has for sale. You will have to multiply the price of one piece of merchandise times the quantity to get the value or how much the inventory is worth.

1. Carefully study the problem below.

2. Understand? If so, turn to page 4 of your Working Papers, Activity 12.

3. Make a tape of each problem. Pretend that no one is verifying your work and do each problem *twice* for accuracy.

STOCK NO.	DESCRIPTION	PRICE	QUANTITY	VALUE
20-103	Tire size 20 X 1.75	2.50	44	110.00
20-166	Tire size 24 X 1.75	2.67	86	229.62
20-1078	Tire size 26 X 1.75	3.45	32	110.40
20-1079	Tire size 26 X 2.12	3.76	9	33.84
198	Black pedals	1.56	104	162.24
2-176	Rat trap pedals	1.76	84	147.84
44-78	Basket	5.89	13	76.57
56-8	Speedometer	12.56	3	37.68
782	Banana Seat	5.75	6	34.50
				942.69

TOTAL

WHEN YOU TOTAL ALL THE NUMBERS IN THE VALUE COLUMN AND
GET THE SAME ANSWER AS THE ONE OPPOSITE THE WORD TOTAL,
YOU MAY ASSUME YOUR WORK IS CORRECT.

REVIEW YOUR MULTIPLICATION THEN GET QUIZ 5 FROM YOUR
INSTRUCTOR ... REMEMBER TO STAPLE TAPES TO WORKING
PAPERS ... PAGE 7.

STOP
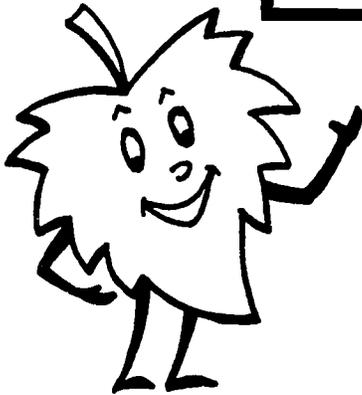
USE OF DECIMALS

DON'T SHY AWAY BECAUSE OF THE WORD DECIMAL!

IT'S EASY . . . GO SLOW AND THINK!

.1.   Decimal points must line up in addition and subtraction — just like you learned in elementary school. Line up your decimal points. Bring the decimal points *straight down* in your answer.

$$
\begin{array}{r}
9.742 \\
+\ 7.500 \\
\hline
17.242
\end{array}
$$

Adding by Hand

$$
\begin{array}{r}
9.742 \\
-\ 7.500 \\
\hline
2.242
\end{array}
$$

Subtracting by Hand

2.   Notice the answer above has 3 decimals —   Your machine only prints 2 decimals — So **D I S R E G A R D** the decimal point your machine prints!

3. In order for you to arrange the numbers so that all of the decimal points line up, you have to *add zeros* to the right of the number with the *smallest* decimal placement. You do this so that it will have as many places as the digit with the largest number of decimal places.

By Hand

$$9.742$$
$$+7.500$$
$$\overline{17.242}$$

By Machine   97.42   *Disregard*
               75.00   *decimal*
              172.42   that prints

Adding
Machine
Tape

Add 2 zeros
at end to
make decimals
line up

DO THE SAME THING WHEN SUBTRACTING

By Hand

$$9.742$$
$$-7.500$$
$$\overline{2.242}$$

By Machine   97.42   *Disregard*
               75.00   *decimal*
              22.42   that prints

Adding
Machine
Tape

Add 2 zeros at
end to make
decimals line up

SOME MORE EXAMPLES:

54.70
+ 1.23   Should look like

54.70 ◄——— (Add zero so that
+ 1.23   decimals line up)

69.6
- .832   Should look like

696.00   (Disregard decimals)
- .832

(Decimals lined up)

You're on the right track!

ACTIVITY 13
Practice On Adding & Subtracting With Decimals

1. Remember to check your desk arrangement and write on your tape.

2. Be sure to have that clear signal before every problem and be sure to use the Non-Add Key to number your problems.

3. Do each problem below!

4. NO *LOOKING* AT YOUR MACHINE!

(1)	4.54	(2)	76.01
	+1.2		+93.3
	5.74 Yes? (Great)		169.31 Yes? (Great)
	No? (Repeat)		No? (Repeat)

. . . .

(3)	7.182	(4)	74.3
	+ 3.04		- 19.85
	10.222 Yes? (Great)		54.45 Yes? (Great)
	No? (Repeat)		No? (Repeat)

. . . .

(5)	13.97	(6)	4.207
	-4.052		- 1.03
	9.918 Yes? (Great)		3.177 Yes? (Great)
	No? (Repeat)		No? (Repeat)

. . . .

REMEMBER TO TEAR OFF YOUR TAPE AND FOLD IN LENGTHS AS LONG AS THIS PAPER FOR EACH ACTIVITY. STAPLE TAPE TO PAGE 7 OF WORKING PAPERS.

Practice On Multiplying With Decimals

THE PROCEDURE OF MULTIPLICATION IS JUST LIKE YOU LEARNED IN ELEMENTARY SCHOOL

EXAMPLE:

$$
\begin{array}{r}
3.93 \\
\times .541 \\
\hline
393 \\
1572 \\
1965 \\
\hline
2.126.13
\end{array}
$$

= A total of 5 decimal places

Disregard decimal on machine

Count back 5 spaces for total number of decimal places in your problem.

MORE PRACTICE:

4.73		473
x .24	looks like	473
		473
		473
		4730
(4 decimal places —		4730
4 digits beyond		1.1352 T
the decimal point)		

(To determine decimal point, count back 4 digits from the number 2 in the total)

9.01		901
x 2.6	looks like	901
		901
		901
		901
(3 decimal places —		901
3 digits beyond		9010
the decimal point)		9010
		23.426 T

(To determine decimal point, count back 3 digits from the number 6 in the total.)

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ACTIVITY 14
Multiplication With Decimals

1. Remember to check your desk arrangements and write on your tape.

2. Be sure to have that clear signal before every problem and be sure to use the Non-Add Key to number your problem.

3. Do each problem until you get the correct answer!

4. NO *LOOKING* AT YOUR MACHINE!

....

(1)   306.15
    x   4.75 Yes? (Great)
    1454.2125 No? (Repeat)

(2)   77.777
    x   .555 Yes? (Great)
    43.166235 No? (Repeat)

....

(3)   .43
    x 9 Yes? (Great)
    3.87 No? (Repeat)

(4)   145.6
    x   .870 Yes? (Great)
    126.6720 No? (Repeat

....

(5)   765.3
    x   5.2 Yes? (Great)
    3979.56 No? (Repeat)

(6)   76.01
    x   93.3 Yes? (Great)
    7091.733 No? (Repeat)

....

(7)   39.42
    x   .3670 Yes? (Great)
    14.467140 No? (Repeat)

(8)   275
    x .093   Yes? (Great)
    25.575   No? (Repeat)

....

(9)   567.89
    x   .345 Yes? (Great)
    195.92205 No? (Repeat)

(10)   44.99
    x   .332 Yes? (Great)
    14.93668 No? (Repeat)

....

REMEMBER TO TEAR OFF YOUR TAPE AND FOLD IN LENGTHS AS LONG AS THIS PAPER FOR EACH ACTIVITY. STAPLE TAPE TO WORKING PAPER PAGE 7.

ACTIVITY 15
Business World Problems - Decimals

A PURCHASE ORDER is used by companies to order merchandise.

1) Notice the headings on the purchase order. When figuring the total price you multiply quantity times unit price which equals total price for each item.

2) To find the total of all the items you purchased, add the items together.

Study Example Below:

A M Enterprises, Inc.
901 Fifth Street, Clovis, California 93612

VOID

TO *Frank Smith*
135 E Lamont
Westside, KY

PURCHASE ORDER NO.	DATE
PO593-6	*3-12-78*

DELIVER TO

Same

DELIVERY DATE
3-20-78

SHIP BY
UPS

QUANTITY	STOCK NO.	DESCRIPTION	UNIT PRICE	TOTAL PRICE
4 reams	*ST-392-6*	*White stock paper*	*5.95*	*23.80*
5 doz.	*ST-732-4*	*#2 lead pencils*	*1.25 dz.*	*6.25*
				30.05
			6% Tax —	*1.80*
				31.85

Sandy Nix
PURCHASING AGENT

PURCHASE ORDER 18   MWW

UNDERSTAND? GREAT1

Go to Working Papers, Activity 15, and complete the Business World of Work Problems.

ADDING MACHINE
Teacher's Guide

I have divided this guide into special areas that will be of concern to you in the use of the Adding Machine Competency.

I. INTRODUCTION

The purpose of the Filmstrip, Student Manual, and Working Papers is to acquaint the student with the importance, function, and touch system of the adding machine. By the end of this competency, the student should have a working knowledge of the adding machine and be able to use the touch system effectively.

II. PERFORMANCE OBJECTIVES

Given a 10-key adding machine and 10 problems involving addition, subtraction, and multiplication the student will compute the answer using the touch method of operation with 90% accuracy.

Given a 10-key adding machine and 10 problems requiring a subtotal and grand total the student will compute a subtotal and grand total using the touch method of operation with 90% accuracy.

Given a 10-key adding machine and 10 problems involving decimal placement the student will determine the decimal placement with 90% accuracy.

III. COMPONENTS OF THE UNIT

** A. Filmstrip/SlideTape

"Why and How" filmstrip should be shown before the student starts his progress through the Student Manual.

B. Filmstrip/Slide Tape Quiz

There is a quiz to be given to the student after the filmstrip is over.

C. Student Manual

The Student Manual teaches the student. Following the introduction of each new concept, there are activities provided for reinforcement. The Student Manual is designed to teach independently from the filmstrip. So, if you do not have the filmstrip or equipment . . . Don't worry.

D. Opening Letter

Make sure every student reads the letter at the beginning of the Student Manual . . . Spot check comprehension before you sign it off on the Progress Chart — Page 1 of the Working Papers.

COMPONENTS OF THE UNIT, continued:

E. Activities

There are two types of activities:

1. Problem Practice — should be completed as directed. A student should do each problem twice before he advances to the next problem in the activity. (Example — Activity 2). When you "spot check" make sure student circles both consecutive answers for each problem on the tape.

2. Business World Practice — These activities have been placed in the Student Manual to show the student that there is a "real" use for the adding machine in each of the major areas . . . adding, subtracting, subtotaling, multiplying, and using decimals. (Example: Activity 6).

F. Activity 1

Even though a student has passed the quiz on the filmstrip, "Why and How of the Adding Machine", it is recommended that for reinforcement purposes he do Activity 1. It is up to the teacher whether you have them complete the section again.

G. Activities Tape

After each activity students are requested to fold tape in one foot lengths and staple them to the appropriate slot as indicated on pages 6 and 7 in the Working Papers. It is suggested that these two pages be printed on heavier stock for sturdiness.

H. Quiz

Whenever there is a Stop Sign at the bottom of the page, the student should do all of the activity indicated, then take the quiz.

I. Progress Chart

Three important facts about the progress chart are:

1. It is suggested that the progress chart be used. A temporary oral review given by the teacher at each check point before administering the quiz has been effective for me. Make sure you check for authorized signatures before you administer the Post Test.

2. When you spot check, make sure they did each step of the activity on their Working Papers.

3. If you want more or fewer check points merely make the adjustments before printing.

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IV. TEACHER GUIDANCE AND RESPONSIBILITY

A. Make sure *Desk Arrangements* are proper as indicated on page 5 of Student Manual.

B. Make sure students *do not write* on Student Manual, but write on the Working Papers provided.

C. Stress to each student that he should first *read slowly all instructions* — if he does not understand then you will be more than willing to help him out.

D. Make sure students understand that they should *return back to the Student Manual after each activity*.

E. Part Differences:

1. Give each student a machine operations manual if the machine they are working on is different than the examples in the booklet.

2. Go over the parts with them if they are different from the parts listed on page 3 of the Student Manual.

3. You could redraw the diagrams to fit the machine you are using before you print.

4. Put diagrams of different machine parts near machines with corresponding labels on the parts so students can recognize the parts as they related to the filmstrip.

F. *Left-Handed* students should use their right hand. Stress they are more fortunate than the right handed person in that they can add with their right hand and write with their left hand.

V. LEVEL OF DIFFICULTY

The unit was written using realistic situations that will be encountered in the business world. The reading level averages approximately eighth grade level. Therefore, the unit can be used in junior high schools, high schools, and with adult students. This unit takes approximately 13 days to complete.

VI. TESTING INSTRUCTIONS

A. **Number of Copies:** You only need 10 copies of each test. Make sure you have them numbered so that you can check them out and in.

B. **Answer Sheet Packet for Tests and Quizzes:**

1. Students are *not* to write on the test copies. They are to write only on the answer sheet provided.

TESTING INSTRUCTIONS, continued:

2. All of the answer sheets for all of the tests and quizzes are together in one packet.

3. Students should turn in the answer sheet packet to you for *you* to keep until it is needed for the next quiz.

4. Make sure students write their name and quiz number on each tape and attach it to the last page of the answer sheet in the appropriate spot.

C. **Grading: Pass/Fail**

1. **Quiz:** each quiz has 10 problems (including teacher evaluation on quizzes 2, 3, and 4). 90% accuracy is required. A student can only miss one in order to proceed to next activity. If they do not pass quiz — have them go back and review student manual and take it again.

2. **Pre-Test/Post-Test/Alternate Post-Test:** There are 32 problems on the Pre-/Post Tests — a student can only miss four problems to pass. Spot check and make sure they understand all phases before they take the Post-Test.

VII. TESTS

Quizzes

1. There is a quiz at the end of the "Why and How of the Adding Machine" filmstrip. 90% accuracy is required.

2. There are quizzes for periodic student progress through the Student Manual covering the following areas. 90% accuracy is required. The quizzes are as follows:

    a) Quiz 1 — Machine Parts (Optional — May eliminate — Media Test Duplication)
    b) Quiz 2 — Finger Placement, Posture and Addition
    c) Quiz 3 — Finger Placement and Subtraction
    d) Quiz 4 — Subtotal and Non-Add Keys
    e) Quiz 5 — Multiplication
    f) Quiz 6 — Decimals

3. Post-Test: A post test has been developed to get an overall evaluation of a student's competency — 90% accuracy is required. An alternate post test is also provided — 90% accuracy is required.

TESTS, continued:

4. Speed Drills: If you want to add speed drills to this unit, feel free to do so. After every quiz (2 - 6) you could have a required speed drill. Example: They have to complete Quiz 2 in 5 minutes on a separate drill after they have passed Quiz 2. Use a timer and time them as if it were a typing test. Make sure you add the speed drill indicator on your Progress to Success sheet so that you make sure they do it.

For the rest of the quizzes (3 - 6) you can try them yourself and set the time standard. If they do not pass the standard set by you, they should practice until they can pass it.

VIII. SUPPLIES

A. Adding Machine and Manual for reference.

B. Slide Tape/Filmstrip and Cassette titled "Why and How of the Adding Machine". (Optional) To be shown before student starts unit — also includes a test on the media.

C. Auto Filmstrip Projector — if you have a filmstrip and cassette, or

D. Slide-Sinc Projector — if you have slides and tape.
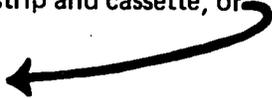
E. Pencil

F. Stapler to staple tapes to proper pages.

ADDING MACHINE ANSWER KEYS

PRE-TEST ANSWER KEY

1.	204.59	12.	135177	23.	1686
2.	253.85	13.	78375	24.	179.17
3.	1,531.93	14.	716450	25.	1903
4.	786.72	15.	3.33972	26.	3.01 (—) tc
5.	47.68	16.	688.52	27.	13.07
6.	602.94	17.	694.46	28.	75.56
7.	424.90	18.	11.13	29.	.55
8.	3.19	19.	136.45	30.	7646872
9.	129.77	20.	137.21	31.	228933
10.	1.0058	21.	363.72	32.	688.52
11.	54741	22.	1339		

QUIZ 1 ANSWER KEY

1.	Tape (paper)	6.	Minus Key
2.	Paper Cutter	7.	Repeat Key
3.	Column Indicator	8.	Plus Bar
4.	Subtotal Key	9.	Total Key
5.	Non-Add Key	10.	Platen Knob

QUIZ 2 ANSWER KEY

1.	44.40	6.	1,741.65
2.	44.00	7.	5,689.83
3.	37.95	8.	8,000.80
4.	46.14	9.	Teacher Evaluation
5.	34.37	10.	Teacher Evaluation

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ADDING MACHINE ANSWER KEY

QUIZ 3 ANSWER KEY

1. 3670
2. 275.25 (−) TC
3. 1216.88
4. 500.57 (−) TC
5. 322.40 (−) TC

6. 6.66
7. 1214.78
8. 174.01
9. 29.25 (−) TC
10. Teacher Evaluation

QUIZ 4 ANSWER KEY

1. 7.77
2. 17.31
3. 19.95
4. 1335
5. 77676

6. 78619
7. 1022
8. 5534
9. 3288
10. Teacher Evaluation

QUIZ 5 ANSWER KEY

1. 2534
2. 8448
3. 6792
4. 3696
5. 36,890

6. 1710
7. 6732
8. 3450
9. 16,632
10. 74,134

QUIZ 6 ANSWER KEY

1. 17.741
2. 225.966
3. 39.412
4. 4776.77
5. 668.1359

6. 23.75
7. 173.0976
8. 6154
9. 7293
10. 16632

ADDING MACHINE ANSWER KEY

POST-TEST I ANSWER KEY

1.	204.59	12.	135177	23.	1686
2.	253.85	13.	78375	24.	179.17
3.	1,531.93	14.	716450	25.	1903
4.	786.72	15.	3.33972	26.	3.01 (—) TC
5.	47.68	16.	688.52	27.	13.07
6.	602.94	17.	694.46	28.	75.56
7.	424.90	18.	11.13	29.	.55
8.	3.19	19.	136.45	30.	7646872
9.	129.77	20.	137.21	31.	228933
10.	1.0058	21.	363.72	32.	688.52
11.	54741	22.	1339	33.	PASSED/FAILED
					Teacher Evaluation

POST-TEST II ANSWER KEY

1.	765.56	12.	319506	23.	3041
2.	422.81	13.	278625	24.	93.76
3.	1473.29	14.	1993955	25.	1990
4.	874.65	15.	3.46668	26.	.58 (—) TC
5.	185.51 (—) TC	16.	197.26	27.	6.75
6.	592.50	17.	214.27	28.	54.31
7.	721.45	18.	15.21	29.	1.72
8.	2.47	19.	125.95	30.	20232742
9.	135.71	20.	126.62	31.	85968
10.	.833	21.	140.30	32.	734.29
11.	69564	22.	1926	33.	PASSED/FAILED
					Teacher Evaluation

44

ADDING MACHINE ANSWER KEY

MEDIA TEST ANSWER KEY

1. c
2. c
3. c
4. b
5. d
6. a
7. c
8. b
9. c
10. c
11. a
12. c
13. b
14. c
15. a

45

PROGRESS CHART

DIRECTIONS: After you have successfully completed each activity and have received your teacher's signature, you are to return to your Student Manual and complete the next page.

Teacher Signature

LETTER TO STUDENT — Read Carefully .... _____

ACTIVITY 1 — Machine Parts

QUIZ 1 — Machine Parts .... _____

ACTIVITY 2 — Practice Adding & Total Key .... _____

(Check tape
for circles)

ACTIVITY 3 — Practice on Upreaches to 7, 8, 9

ACTIVITY 4 — Practice on 1, 2, & 3 Keys

ACTIVITY 5 — Practice on Zero Key

ACTIVITY 6 — Business World Problems — Addition .... _____

DEMONSTRATE CORRECT FINGER PLACEMENT TECHNIQUE .... _____

QUIZ 2 — Finger Placement, Posture & Addition .... _____

ACTIVITY 7 — Practice on Subtraction

ACTIVITY 8 — Business World Problem — Subtraction

QUIZ 3 — Finger Placement & Subtraction .... _____

ACTIVITY 9 — Practice on Subtotal & Non-Add

ACTIVITY 10 — Business World Problem — Subtotal & Non-Add

QUIZ 4 — Subtotal & Non-Add Keys .... _____

ACTIVITY 11 — Practice on Multiplication

ACTIVITY 12 — Business World Problems — Multiplication

QUIZ 5 — Multiplication .... _____

ACTIVITY 13 — Practice on Adding & Subtracting with Decimals

ACTIVITY 14 — Practice on Multiplying with Decimals

ACTIVITY 15 — Business World Problems — Decimals

QUIZ 6 — Decimals .... _____

POST TEST .... _____

PAGE 3 OF LAP — STEP 2

_____   _____   _____
_____   _____   _____
_____   _____   _____
                           _____

ACTIVITY 1
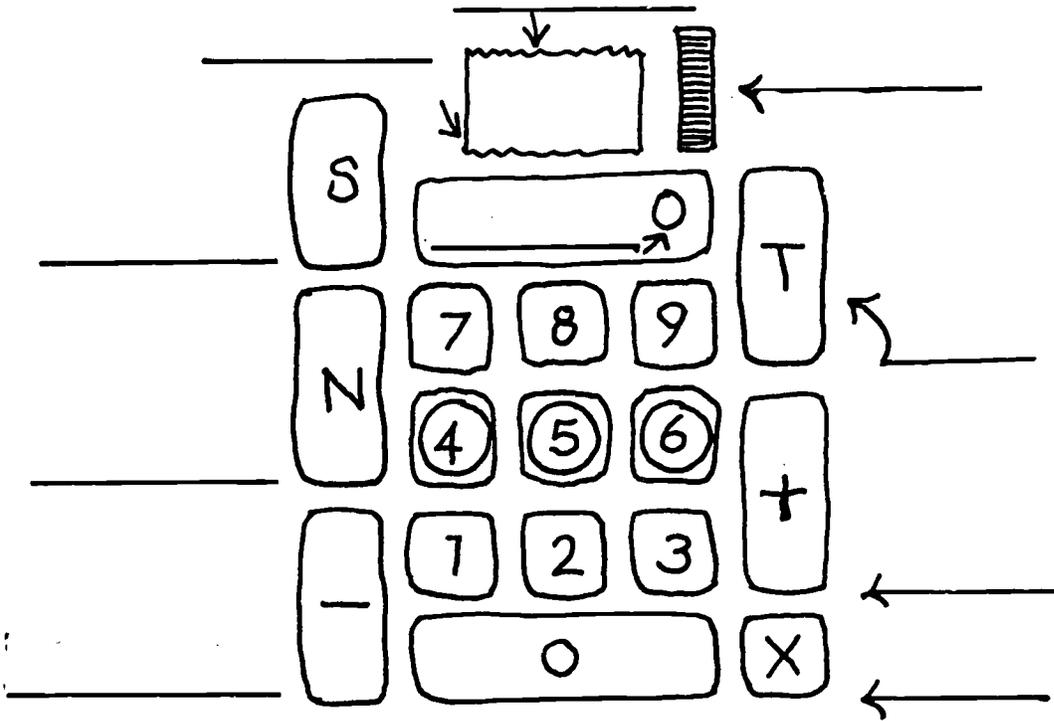
ACTIVITY 6

1. Total: _____   2. Total: _____

3. Correct / Wrong   4. Correct / Wrong
        (Circle One)   (Circle One)

47

ACTIVITY 8

	Last Month	This Month	DIFFERENCE	
			Increase	Decrease
Boys' Clothes	158.60	210.40		
Cosmetics	610.50	520.00		
Hardware	462.70	370.82		
Junior Clothes	206.70	179.80		
Pet	523.00	435.00		
Shoes	894.63	1,062.17		
Snack Bar	93.67	104.62		
Sporting Goods	1,293.44	2,078.56		
Toys	783.40	809.40		
			1,041.41	297.28

ACTIVITY 10

(PUT THE BALANCE IN YOUR MACHINE FIRST!)

CHECK NO.	DATE	CHECK ISSUED TO	DEPOSITS (Add)		AMOUNT OF CHECK (Subtract)		BALANCE $162.14	
123	10/16	Pacific, Gas, and Elec.			12	03	150	11
124	10/17	Treeland Rental Agency			100	00	50	11
	10/18		350	00				
125	10/19	Beast Bay MUD			26	78		
126	10/22	Catwells			40	00		
127	10/23	Sears Sawbuck Co.			25	67		
128	10/24	TankAmericard	250	00				
129	10/25	Good Care Auto			57	88		
130	10/27	Monkey Wards			37	82		
131	10/30	Noosepaper			2	25	459	71

TOTAL

ACTIVITY 12

Complete Problems 1 and 2 below using the example on Page 27 of your Student
Manual. Remember to do *each* problem *twice*!

1.)

STOCK NO.	DESCRIPTION	PRICE	QUANTITY	VALUE
42-371P	Leisure Suit	69.95	13	
43-472T	Tank Tops	3.98	176	
760998S	Shorts	6.89	83	
56-332J	Levis	13.98	245	
29-667B	Blouses	7.62	9	
66-201S	Sandles	10.50	23	
12-009T	Ties	5.00	4	
01-789E	Earrings	3.49	76	
				6202.12
				TOTAL

2.)

STOCK NO.	DESCRIPTION	PRICE	QUANTITY	VALUE
39-R	Tennis Racket	42.95	108	
47-C	Racket Cover	5.59	37	
88-B	Baseball Bat	9.99	82	
56-B	Baseball	3.48	34	
70-B	Bowling Balls	21.99	56	
87-S	Bowling Shoes	15.75	9	
33-R	Roller Skates	23.98	52	
69-I	Ice Skates	31.31	29	
				9311.07
				TOTAL

49

ACTIVITY 15 — Business World Decimal Problems

In the problems below figure the total amount owed you by the two companies below. Use Page 34 in your Student Manual to guide you. Your answer should equal the one given — if it doesn't . . . Repeat until it does.

A M Enterprises, Inc. VOID

PURCHASE ORDER NO. PO 593-7 DATE 3-12-79

DELIVER TO: SAME

TO FRANK SMITH
125 E. LARSON
WESTSIDE, CALIF. 91321

DELIVERY DATE 3-24-79
SHIP BY: Air Freight

QUANTITY	STOCK NO.	DESCRIPTION	UNIT PRICE	TOTAL PRICE
12	ST-942-0	PUSH BROOMS	1.95	
3	ST-111-2	METAL BUCKETS	1.25	
1	ST-433-3	ALUMINUM LADDER	24.95	
4	ST-998-0	STEP LADDER	10.19	
			TOTAL	$92.86

PURCHASE ORDER 18   MWW

A M Enterprises, Inc. VOID

PURCHASE ORDER NO. PO 593-8 DATE 3-4

DELIVER TO: SAME

TO JOHN JONES
892 PARK PLACE
WESTSIDE, CALIF. 92341

DELIVERY DATE 3-14
SHIP BY: U.P.S.

QUANTITY	STOCK NO.	DESCRIPTION	UNIT PRICE	TOTAL PRICE
3	ST-997-2	WHITE LATEX PAINT	10.95	
4	ST-886-2	LONG HANDLE ROLLER	3.79	
2	ST-886-0	PAINT PANS	1.15	
3	ST-994-1	YELLOW PAINT	6.58	
			TOTAL	$70.05

Review decimals and
obtain Quiz 6 from
your instructor.

STOP

STAPLE TAPES HERE

ACTIVITY 2

ACTIVITY 3

ACTIVITY 8

ACTIVITY 7

ACTIVITY 4

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ACTIVITY 6

ACTIVITY 5

ACTIVITY 9

ACTIVITY 10

ACTIVITY 11

ACTIVITY 15

ACTIVITY 12

ACTIVITY 14

ACTIVITY 13

ADDING MACHINE

QUIZ 1 — MACHINE PARTS

DIRECTIONS: Label the parts as indicated below. *DO NOT* write on this test! Write your answers beside the corresponding numbers on your Adding Machine Answer Sheet.
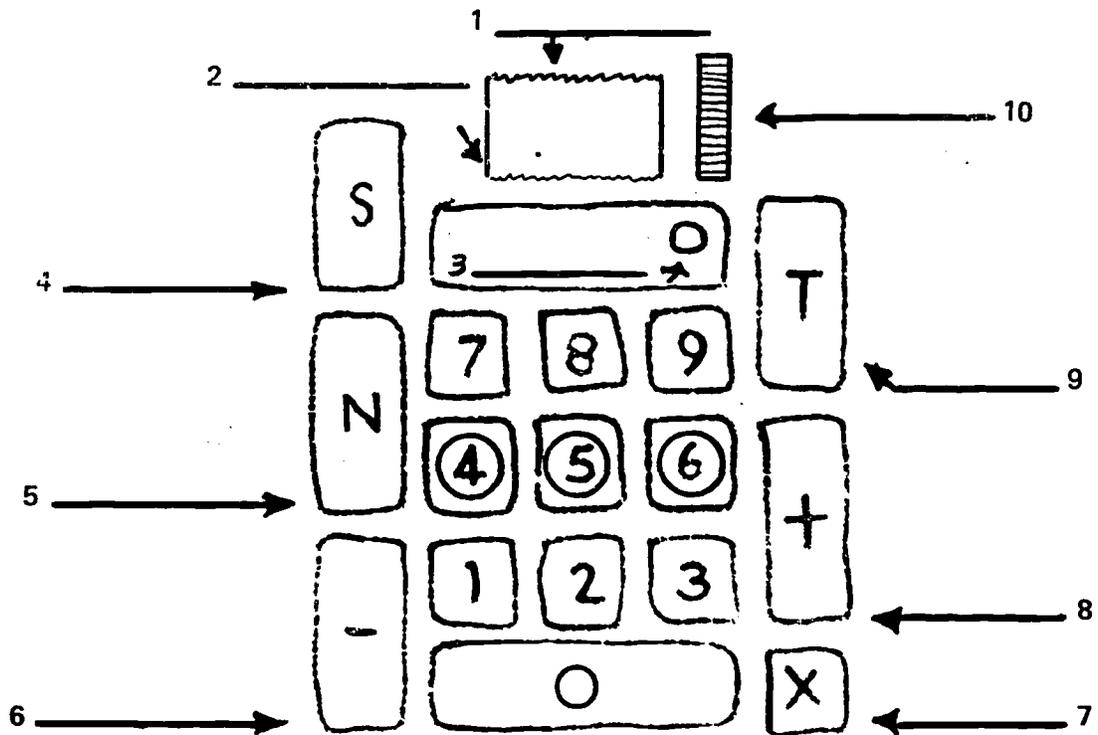
ADDING MACHINE

QUIZ 2 — FINGER PLACEMENT, POSTURE AND ADDITION

DIRECTIONS: Do each of the problems twice to verify accuracy. Place both answers (they should be the same) on the answer sheet provided. *DO NOT* write on this test!

(1)	(2)	(3)	(4)
5.55	5.50	4.44	6.39
5.55	2.20	4.11	6.36
6.66	8.80	4.77	3.36
6.66	8.20	7.74	6.33
4.44	2.80	1.14	6.99
4.44	2.50	4.17	3.99
5.55	8.50	7.14	9.33
5.55	5.50	4.44	3.39

(5)	(6)	(7)	(8)
1.03	78.98	521.20	687.50
3.01	77.97	532.15	829.60
4.06	9.87	531.23	522.70
6.04	755.98	123.21	189.80
7.09	7.09	344.30	950.50
9.07	700.00	.10	3,849.21
3.01	56.78	3,625.14	427.80
1.06	54.98	12.50	543.69

(9) Proper use of touch system without *LOOKING*
   (Teacher evaluation on Answer Sheet for Quiz 2)

(10) Proper posture (Teacher evaluation on Answer Sheet for Quiz 2)

54

ADDING MACHINE

QUIZ 3 – FINGER PLACEMENT AND SUBTRACTION

DIRECTIONS: Do each of the problems twice to verify accuracy. Place both answers (they should be the same) on the answer sheet provided. *DO NOT* write on this test!

(1)	9510	(2)	312.20	(3	*1960.74*	(4)	5.17
	6840–		587.45–		*–734.86*		811.04
							583.70–
	═══		═══		═══		482.52
	═══		═══		═══		308.80
							738.52–
							56.26
							114.20
							8.70

(5) 186.04–   (6) *8.10*   (7) 2619.80   (8) 652.75–
     546.95   *2.30*   1405.02–   278.09–
     597.92–   *5.84 –*   615.25
     4.65   *7.61 –*   9.47–
     73.55   *9.71*   63.27
     94.59   *4.96*   876.74–
     38.53   *6.77*   715.43
     76.57   *2.61 –*   59.04
     373.28–   *9.12 –*   538.07

(9) *68.38*
     –97.63

(10) Proper use of touch system without *LOOKING*
     (Teacher evaluation on answer sheet for Quiz 3)

ADDING MACHINE

QUIZ 4 – SUBTOTAL AND NON-ADD KEYS

DIRECTIONS: In order for you to demonstrate that you know how to use the Non-Add Key, number each problem using the non-add key on your tape before starting *each* problem.

Do each problem twice to verify accuracy. Put your answers on the answer sheet provided. *DO NOT* write on this test!

✓ NOTE: *The answers given for Grand Total may be wrong* . . . So, watch it!

(1)
```
   2.01
   5.76
_____  ST (1)
   4.31
   5.23
_____  ST (2)
   2.10
    .54
_____  ST (3)
   2.43
 22.38  Total
```

(2)
```
    156
   1179
_____  ST (4)
  76341
_____  ST (5)
    943
_____  ST (6)
    442
  79066  GT
```

(3)
```
   179
   486
   357
_____  ST (7)
    51
  4461
_____  ST (8)
   498
  6032  Total
```

(4)
```
    165
   2778
    346
_____  ST (9)
    428
   3716  GT
```

(10) Teacher evaluation on answer sheet – proper use of the Non-Add Key.

ADDING MACHINE

QUIZ 5 — MULTIPLICATION

DIRECTIONS: Do each of the problems twice to verify accuracy. Place both answers (they should be the same) on the answer sheet provided. *DO NOT* write on this test!

(1)　362
　　　x　7
　　　＝＝＝＝
　　　＝＝＝＝

(2)　*192*
　　　44
　　　＝＝＝＝
　　　＝＝＝＝

(3)　566
　　　x　12
　　　＝＝＝＝
　　　＝＝＝＝

(4)　　28
　　　x132
　　　＝＝＝＝
　　　＝＝＝＝

(5)　*595*
　　　x 62
　　　＝＝＝＝
　　　＝＝＝＝

(6)　　38
　　　x 45
　　　＝＝＝＝
　　　＝＝＝＝

(7)　187
　　　x 36
　　　＝＝＝＝
　　　＝＝＝＝

(8)　150
　　　x 23
　　　＝＝＝＝
　　　＝＝＝＝

(9)　126
　　　x132
　　　＝＝＝＝
　　　＝＝＝＝

(10)　*367*
　　　x 202
　　　＝＝＝＝
　　　＝＝＝＝

ADDING MACHINE
QUIZ 6 — DECIMALS

DIRECTIONS: Do each of the problems twice to verify accuracy. Place both answers (they should be the same) on the answer sheet provided. *DO NOT* write on this test!

(1)   16.531
    + 1.21

(2)   14.566
    + 211.4

(3)   15.1
    +24.312

(4)   5029
    −252.23

(5)   723.07
    −549.341

(6)   68.38
    − 44.63

(7)   416.1
    x .416

(8)   362
    x 17

(9)   187
    x 39

(10)   126
    x 132

58

ADDING MACHINE
PRE-TEST

DIRECTIONS: Do the following 32 problems which measures your ability on the adding machine to: subtract, multiply, obtain a subtotal, grand total, and proper use of decimals in problems. The touch system *should be used* throughout the entire test. *DO NOT* write on this test . . . Use the answer sheet provided.

✔ Hint: Do each problem twice to check your accuracy.

Good Luck!

. . . .

(1)	5.36	(2)	.50	(3)	726.17	(4)	7.28
	.15		.32		5.34		2.08
	7.18		8.80		7.85		24.94
	22.37		.11		.08		9.11
	2.99		12.10		4.48		.55
	.66		125.10		91.79		382.56
	.25		36.21		652.37		.93
	1.64		5.20		.67		5.54
	163.99		3.63		43.18		.03
	T		61.88		T		353.70
			T				T

. . . .

(5)	6.42	(6)	2.64	(7)	467.79	(8)	7.94
	.02		164.47		42.89—		4.75—
	.66		.21		T		T
	578.78—		12.11—				
	25.15		.71				
	1.56		4.83—				
	32.50—		785.16				
	600.00		333.31—				
	25.15		T				
	T						

. . . .

(9)	134.55	(10)	1.07	(11)	257	(12)	157	(13)	1,375
	4.78—	x	.94		x213		x861	x	57
	T		T		T		T		T

. . . .

59

(14)　1,246　　　(15)　27.831　　　　　　　4.11
　　x　575　　　　　x　　.12　　　　　　　　.55
　　　　　T　　　　　　　　　T　　　　　　　4.07
　　　　　　　　　　　　　　　　　　　　　671.93
　　　　　　　　　　　　　　　　　　　　　　7.78
　　　　　　　　　　　　　　　　　　　　　　 .08
　　　　　　　　　　　　　　　　　　　　　ST (16)
　　　　　　　　　　　　　　　　　　　　　1.69
　　　　　　　　　　　　　　　　　　　　　1.69
　　　　　　　　　　　　　　　　　　　　　2.41
　　　　　　　　　　　　—　　　　　　　　 .15
　　　　　　　　　　　　　　　　　　　　　GT (17)

. . . .

　　2.01　　　　　(21)　.06　　　(22)　257　　　(23)　537
　　5.76　　　　　　　 .06　　　　　　257　　　　　　 15
　　3.36　　　　　　　 .06　　　　　　 41　　　　　　718
　　　ST (18)　　　　　 .91　　　　　　 41　　　　　　227
　20.80　　　　　　　 .91　　　　　　 44　　　　　　 25
　97.50　　　　　　 88.38　　　　　　 44　　　　　　164
　　 .89　　　　　　 88.38　　　　　　 44　　　　　　　T
　　6.13　　　　　　 88.38　　　　　　120
　　　ST (19)　　　　88.38　　　　　　120
　　 .75　　　　　　 88.38　　　　　　120
　　 .01　　　　　　　4.10　　　　　　120
　　　GT (20)　　　　 4.10　　　　　　131
　　　　　　　　　　　　T　　　　　　　　T

. . . .

(24)　94.24　　(25)　620　　(26)　 .10　　(27)　6.13　　(28)　85.50
　　 2.80　　　　　 71　　　　 5.47—　　　　6.63　　　 -　9.94
　　　.97　　　　　 79　　　　 9.12　　　　　 .31　　　　　 T
　　8.71　　　　　362　　　　 7.50—　　　36.39—
　72.45　　　　　 72　　　　　.74　　　　36.39　　　. . . . .
　　　T　　　　　699　　　　　 T　　　　　　T
　　　　　　　　　　 T　　　　　　　　　　　　　　　　(32)　 4.11
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　.55
. . . .　　　　　　4.07
　　　　　　　　　　　　　　　　　　　　　　　　　　　 671.93
(29)　 9.25　　(30)　7,624　　(31)　3,753　　　　　　　 7.78
　　 -　8.7　　　　x1,003　　　　　 61　　　　　　　　　 .08
　　　　 T　　　　　　 T　　　　　　 T　　　　　　　　　　T

60

ADDING MACHINE
POST TEST
I

DIRECTIONS: Do the following 32 problems which measures your ability on the adding machine to: subtract, multiply, obtain a subtotal, grand total, and proper use of decimals in problems. The touch system *should be used* throughout the entire test.

DO NOT write on this test . . . use the answer sheet provided.

Hint: Do each problem twice to check your accuracy. Good Luck!

(In some of the problems, you may get a negative answer)

. . . .

(1)	5.36	(2)	.50	(3)	726.17	(4)	7.28
	.15		.32		5.34		2.08
	7.18		8.80		7.85		24.94
	22.37		.11		.08		9.11
	2.99		12.10		4.48		.55
	.66		125.10		91.79		382.56
	.25		36.21		652.37		.93
	1.64		5.20		.67		5.54
	163.99		3.63		43.18		.03
	T		61.88		T		353.70
			T				T

. . . .

(5)	6.42	(6)	2.64	(7)	467.79	(8)	7.94	(9)	134.55
	.02		164.47		42.89–		4.75–		4.78–
	.66		.21		T		T		T
	578.78–		12.11–						
	25.15		.71						
	1.56		4.83–						
	32.50–		785.16						
	600.00		333.31–						
	25.15		T						
	T								

. . . .

(10)	1.07	(11)	257	(12)	157	(13)	1,375	(14)	1,246
	x .94		x213		x861		x 57		x 575
	T		T		T		T		T

. . . .

(15) 27.831
  x   .12
           T

           4.11
           .55
           4.07
         671.93
           7.78
           .08
                  ST (16)
           1.69
           1.69
           2.41
           .15
                  GT (17)

           2.01
           5.76
           3.36
                  ST (18)
          20.80
          97.50
           .89
           6.13
                  ST (19)
           .75
           .01
                  GT (20)

. . . .

(21)   .06
       .06
       .06
       .91
       .91
     88.38
     88.38
     88.38
     88.38
      4.10
      4.10
             T

(22) 257
      257
       41
       41
       44
       44
       44
      120
      120
      120
      120
      131
            T

(23) 537
       15
      718
      227
       25
      164
           T

(24) 94.24
       2.80
        .97
       8.71
      72.45
            T

. . . .

(25) 620
       71
       79
      362
       72
      699
          T

. . . .

(26)   .10
      5.47—
      9.12
      7.50—
       .74
            T

(27) 6.13
      6.63
       .31
     36.39—
     36.39
            T

(28) 85.50
    — 9.94
            T

. . . .

(32) 4.11
       .55
      4.07
    671.93
      7.78
       .08
            T

(29)   9.25
     — 8.7
            T

(30) 7,624
     x1,003
            T

(31) 3,753
     x   61
            T

(33) Teacher Evaluation of Touch-System on Answer Sheet.

62

ADDING MACHINE
POST-TEST
II

DIRECTIONS: Do the following 32 problems which measures your ability on the adding machine to: subtract, multiply, obtain a subtotal, grand total, and proper use of decimals in problems. The touch system *should be used* throughout the entire test.

DO NOT write on this test . . . use the answer sheet provided.

Hint: Do each problem twice to check your accuracy. Good Luck!

(In some of the problems, you may get a negative answer)

. . . .

(1)	3.65	(2)	.05	(3)	767.12	(4)	2.78
	.51		.23		3.54		8.02
	8.17		8.08		8.75		42.49
	37.22		.11		.80		1.19
	9.29		10.12		8.48		.55
	.66		251.01		19.97		283.65
	.52		63.12		625.73		.39
	6.41		2.05		.76		4.55
	699.13		6.36		38.14		.30
	T		81.68		T		530.73
			T				T

. . . .

(5)	4.62	(6)	6.24	(7)	769.74	(8)	7.94
	.20		146.74		48.29—		5.47—
	.66		.12		T		T
	875.87—		11.21—				
	52.51		.17				
	5.16		3.84 —				
	25.30—		587.61				
	600.00		133.33—				
	52.51		T				
	T						

. . . .

(9)	143.55	(10)	1.70	(11)	132	(12)	618	(13)	3,715
	7.84—		x .49		x527		x517		x 75
	T		T		T		T		T

```
(14)   2,641      (15)   12.381        1.41              1.02
       x  755            x    .28       .55              7.56
                                       7.04              6.63
                                     179.36           _____ ST (18)
                                       8.87            28.00
                                        .03            79.05
                                     _____ ST (16)      .08
                                       6.19             3.61
                                       6.19           _____ ST (19)
                                       4.12              .57
                                        .51              .10
                                     _____ GT (17)   _____ GT (20)
```

....

```
(21)     .60     (22)  257     (23)  753      (24)  49.42
         .60           257           51             8.20
         .60            14          817              .79
         .19            14          727             7.81
         .19            77.          52            27.54
       33.83            77          641          _____ T
       33.83            77         _____
       33.83           210            T
       33.83           210
       33.83           210
        1.40           210
        1.40           313
      _____ T      _____
                       T
```

....

```
(25) 260        (26)   .01      (27)   3.16     (28)   58.80
     17              4.57−             3.46          − 4.49
     97              9.21              .13        _____ T
    623             5.70−           63.93−
     27              .47            63.93
    966           _____          _____     ..................................
    _____            T                T
      T                                         (32)   1.41
                                                        .55
..........................................                7.04
                                                      716.39
(29)   9.52     (30)  6,742     (31)  5,373           8.87
     − 7.8            x3,001          x   16            .03
     _____ T        _____ T      _____ T       _____
                                                       T
```

(33) Teacher Evaluation of Touch System on Answer Sheet.   64

WHY & HOW OF THE ADDING MACHINE
MEDIA TEST

DIRECTIONS: Place your answers to the problems below on the answer sheet provided. DO NOT write on this test!!

POSTURE

1. Proper posture means:
   a) Getting a comfortable position
   b) Putting machine to your left and book to your right; sitting erect with feet flat on the floor.
   c) Putting machine to your right, book to your left, and sitting erect with feet flat on the floor.
   d) None of the above

PARTS

2. To enter the number 3 into your machine you should press the:
   a) 3 key and then the subtotal key
   b) 3 key and then the non-add key
   c) 3 key and then hit the plus bar
   d) None of the above

3. The _____ is used to *add* the number you have set in your keyboard.

   a) Subtotal
   b) Minus key
   c) Plus bar
   d) None of the above

4. The key you strike to obtain a grand total is the:
    a) Subtotal Key
    b) Total Key
    c) Non-Add Key
    d) None of the above

5. The _____ is the key you press that gives you a temporary total:
    a) Non-Add Key
    b) Total Key
    c) Repeat Key
    d) None of the above

6. The number of digits that you have entered in your machine is indicated by the:
    a) Keyboard column indicator
    b) Subtotal Indicator
    c) Non-Add Indicator
    d) None of the above

7. The key you strike to clear the numbers you have set in your keyboard but not entered is the:
    a) Non-Add Key
    b) Total Key
    c) Clear Key or lever
    d) None of the above

8. The repeat key is used mainly to:
    a) Add
    b) Multiply
    c) Subtract
    d) None of the above

9. The key that prints a number on the tape without adding it to the other numbers is called:
   a) Total Key
   b) Clear Key
   c) Non-Add Key
   d) None of the above

TOUCH OPERATION

10. The four, five and six keys are called your:
    a) Non-Add Keys
    b) Subtotal Keys
    c) Home-Row Keys
    d) None of the above

11. Your _____ finger always operates the one, four and seven keys:
    a) Index
    b) Middle
    c) Ring
    d) None of the above

12. Your _____ finger always operates your three, six and nine keys:
    a) Index
    b) Middle
    c) Ring
    d) None of the above

13. Your _____ finger operates the two, five and eight keys:
    a) Thumb
    b) Middle
    c) Ring
    d) None of the above

14. Your _____ (finger) operates the zero key.
    a)   Little
    b)   Middle
    c)   Thumb
    d)   None of the above

15. We learn to use the adding machine because it: saves time; is more accurate; is used in busi-nesses; is easy to transfer to a calculator because of basic knowledge:
    a)   True
    b)   False.

ADDING MACHINE

ANSWER SHEETS FOR PRE-TEST, QUIZZES, AND POST-TEST

DIRECTIONS: You should use this Answer Sheet Package every time you take a Pre-test, Quiz or Post-Test. Make sure you put your answers on the correct section. After you finish *each* test or quiz attach your tape to the appropriate spot on the last page of this Package. Upon completion of each quiz or test show your instructor for credit.

. . . .

PRE-TEST ANSWER SHEET

1. _____	12. _____	23. _____
2. _____	13. _____	24. _____
3. _____	14. _____	25. _____
4. _____	15. _____	26. _____
5. _____	16. _____	27. _____
6. _____	17. _____	28. _____
7. _____	18. _____	29. _____
8. _____	19. _____	30. _____
9. _____	20. _____	31. _____
10. _____	21. _____	32. _____
11. _____	22. _____	_____

. . . .

WHY & HOW OF THE ADDING MACHINE

MEDIA ANSWER SHEET

(Optional — Use only if student has seen Media Presentation)

1. _____	6. _____	11. _____
2. _____	7. _____	12. _____
3. _____	8. _____	13. _____
4. _____	9. _____	14. _____
5. _____	10. _____	15. _____

QUIZ 1 – PARTS

1. _____   4. _____   7. _____
2. _____   5. _____   8. _____
3. _____   6. _____   9. _____
                                               10. _____

. . . .

QUIZ 2 – FINGER PLACEMENT, POSTURE AND ADDITION

(Remember, NO *LOOKING* at your machine)

1. _____   4. _____   7. _____
   _____   _____   _____

2. _____   5. _____   8. _____
   _____   _____   _____

3. _____   6. _____   _____
   _____   _____   _____

9. Proper Posture (Teacher Evaluation):   Passed/Failed   _____
                                                                  (Initial)

10. Touch System (Teacher Evaluation):   Passed/Failed   _____
                                                                  (Initial)

** Put your name and the quiz number on the top of your tape and attach the tape to the last page of the Answer Sheet.

. . . .

QUIZ 3 – FINGER PLACEMENT AND SUBTRACTION

(Remember, NO *LOOKING* at your machine)

1. _____   4. _____   7. _____
   _____   _____   _____

2. _____   5. _____   8. _____
   _____   _____   _____

3. _____   6. _____   9. _____
   _____   _____   _____

10. Touch System (Teacher Evaulation):   Passed/Failed   _____
                                                                  (Initial)

** Put your name and the quiz number on the top of your tape and attach the tape to the last page of the Answer Sheet.

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QUIZ 4 — SUBTOTAL AND NON-ADD KEYS

_____ ST (1)   _____ ST (4)   _____ ST (7)
_____ ST (2)   _____ ST (5)   _____ ST (8)
_____ ST (3)   _____ ST (6)   _____ ST (9)

(10) Use of Non-Add Key for Numbering Problems (Teacher Evaluation):

Passed/Failed   _____

(Initial)

** Put your name and the quiz number on the top of your tape and attach the tape to the last page of the Answer Sheet.

. . . .

QUIZ 5 — MULTIPLICATION

1. _____   4. _____   7. _____
   _____   _____   _____

2. _____   5. _____   8. _____
   _____   _____   _____

3. _____   6. _____   9. _____
   _____   _____   _____

                                                   10. _____
                                                       _____

** Put your name and the quiz number on the top of your tape and attach the tape to the last page of the Answer Sheet.

. . . .

QUIZ 6 — DECIMALS

1. _____   4. _____   7. _____
   _____   _____   _____

2. _____   5. _____   8. _____
   _____   _____   _____

3. _____   6. _____   9. _____
   _____   _____   _____

                                                   10. _____
                                                       _____

** Put your name and the quiz number on the top of your tape and attach the tape to the last page of the Answer Sheet.

POST-TEST I

1. _____	12. _____	23. _____
2. _____	13. _____	24. _____
3. _____	14. _____	25. _____
4. _____	15. _____	26. _____
5. _____	16. _____	27. _____
6. _____	17. _____	28. _____
7. _____	18. _____	29. _____
8. _____	19. _____	30. _____
9. _____	20. _____	31. _____
10. _____	21. _____	32. _____
11. _____	22. _____	33. Passed/Failed _____

ALTERNATE POST-TEST II
(If needed)

1. _____	12. _____	23. _____
2. _____	13. _____	24. _____
3. _____	14. _____	25. _____
4. _____	15. _____	26. _____
5. _____	16. _____	27. _____
6. _____	17. _____	28. _____
7. _____	18. _____	29. _____
8. _____	19. _____	30. _____
9. _____	20. _____	31. _____
10. _____	21. _____	32. _____
11. _____	22. _____	33. Passed/Failed _____

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PRE-TEST
TAPE

QUIZ 2
TAPE

QUIZ 3
TAPE

QUIZ 4
TAPE

ALTERNATE
POST TEST
TAPE

QUIZ 5
TAPE

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POST TEST
TAPE

QUIZ 6
TAPE