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ABSTRACT

This vocational instructional module on the printers' system of measure is one of eight such modules designed to assist recently arrived Arab students, limited in English proficiency (LEP), in critical instructional areas in a comprehensive high school. Goal stated for this module is for the student enrolled in graphics courses to learn the printers' system of measure. Each module consists of these parts: title; program goal and performance objectives; a pronunciation key; a language page which offers the pronunciation, definition, and usage of key terms in English and in Arabic; a pretest; bilingual (English and Arabic) language (vocabulary and usage) activities; evaluation; pretest and activity answer sheets; and a list of supplementary materials and their location. For each of the four activities in this module the objective, a list of materials needed, procedure, and evaluation are provided in addition to the necessary activity sheets or pages.
(YLB)

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ED261178

FORDSON BILINGUAL DEMONSTRATION PROJECT

برنامج فوردسون الثنائي اللغوي التثايني اللغوي

PRINTERS' SYSTEM of MEASURE

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ABOUT THE **PROJECT**

The Fordson Arabic Bilingual Demonstration Project is designed to assist recently arrived Arab students, limited in English proficiency (LEP), to adapt to a large and comprehensive high school. The project consists of academic and vocational instructional modules, reading services to teachers and students, bilingual aide and resource services, computer and television modules, staff development activities, and home-community liaison.

ABOUT THE INSTRUCTIONAL **MODULES**

The modules were designed to assist LEP students in critical instructional areas throughout the school curriculum. These areas of focus were determined by a needs survey of the entire Fordson school community. Each module consists of seven parts: title, objectives, pretest, language (vocabulary and usage) activities, evaluation, and supplementary materials. Modules were translated, duplicated, and field tested.

ABOUT THE **AUTHOR**

Ray Pizzino did his undergraduate work at Wayne State University and his graduate work at the University of Michigan. Ray has worked for ten years in Dearborn in the Industrial Arts Department teaching Automotive, Printing, and Graphics. The major concepts of this unit were those defined as critical for beginning limited English proficiency students in Graphics.



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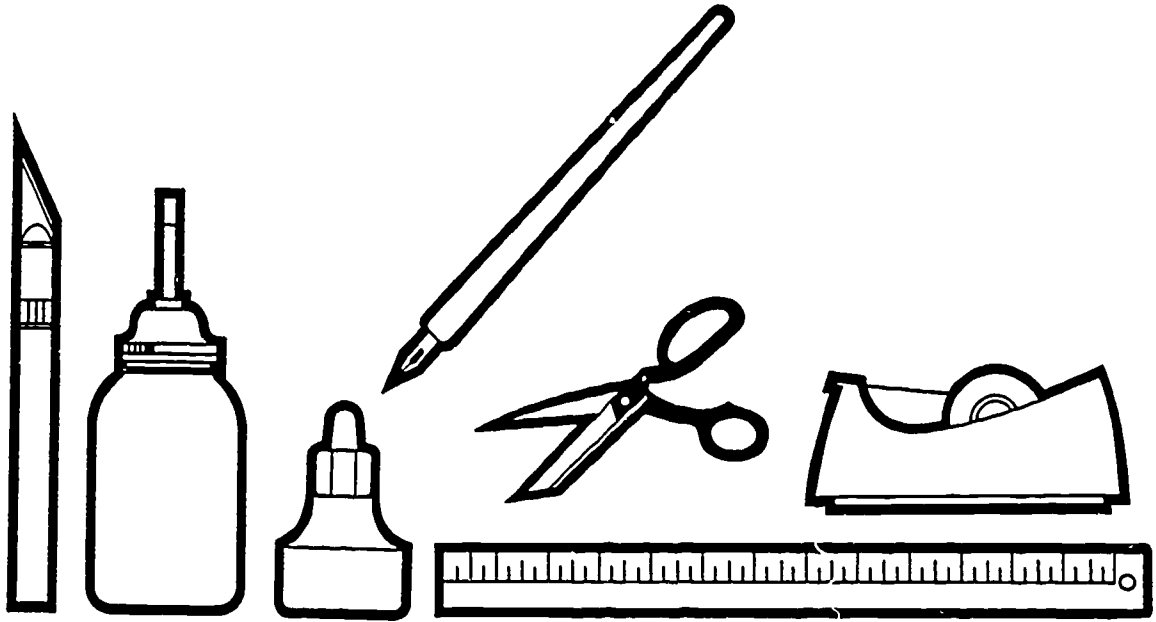
The interest, concern, and committment of Mr. Harvey Failor, Principal of Fordson High School from 1964-1982, to the Demonstration Project was a source of strength and inspiration to us all.

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الفنون التخطيطية
نظام القياس عند الطباعة



GRAPHIC ARTS

PRINTERS SYSTEM OF MEASURE

Developed By: اعداد

Ray Pizzino راي بيزينو

This bilingual module has been developed to assist limited English proficiency students in learning the Printers' System of Measure. The unit is designed for students enrolled in graphics courses.

GENERAL OBJECTIVE:

Using a line gauge, the student will be able to measure width and length of copy and line length in printers' terms.

SPECIFIC OBJECTIVES:

Given 2-6 examples of copy, the student within one week will:

1. Measure the width of various copy in inches, and convert it to picas and points with 100% accuracy.
2. Measure the depth (length) of various copy in inches, and convert it to picas and points with 100% accuracy.
3. Measure line length in inches, and convert it to picas and points with 100% accuracy.

PRETEST

اختبار تمهيدي

DIRECTIONS: Write the answers to the following questions in the space provided.

تعليمات : اكتب الاجوبة

للمسائل التالية في الفراغ المتوفر .

1. 2 picas = _____ points.

١ - ٢ بيكا = _____ بنطا

2. 12 picas = _____ points.

٢ - ١٢ بيكا = _____ بنطا

3. 1 inch = _____ points.

٣ - ١ إنش = _____ بنطا

4. 6 inches = _____ points.

٤ - ٦ إنش = _____ بنطا

5. 2 inches = _____ points.

٥ - ٢ إنش = _____ بنطا

6. 3 picas = _____ points.

٦ - ٣ بيكا = _____ بنطا

7. 4 picas = _____ points.

٧ - ٤ بيكا = _____ بنطا

8. 9 picas = _____ points.

٨ - ٩ بيكا = _____ بنطا

9. 3 ½ inches = _____ points.

٩ - ٣ ١/٢ إنش = _____ بنطا

10. 1 ½ inches = _____ points.

١٠ - ١ ١/٢ إنش = _____ بنطا

PRONUNCIATION KEY

/a/ as in <u>Ad</u> am	/m/ as in <u>ma</u> n
/ā/ as in <u>ca</u> ke	/n/ as in <u>ma</u> n
/e/ as in <u>le</u> t	/p/ as in Dr. <u>Pe</u> pper
/ē/ as in <u>me</u> et	qu equals /kw/ as in <u>qu</u> it
/i/ as in <u>si</u> t	/r/ as in <u>ru</u> n
/ī/ as in <u>ice</u> cream	/s/ as in <u>su</u> n
/o/ as in <u>ho</u> t	/t/ as in <u>te</u> n
/ō/ as in <u>Co</u> ke	/v/ as in <u>va</u> n
/u/ as in Seven <u>Up</u>	/w/ as in <u>wo</u> man
/ū/ as in <u>blu</u> e	/x/ as in <u>ex</u> tra
/b/ as in <u>bo</u> y	/y/ as in <u>ye</u> t (sometimes /ē/ as in <u>ma</u> ny)
c equals /s/ as in <u>ce</u> nts (10¢) /k/ as in <u>ca</u> t	/z/ as in <u>ze</u> bra
/d/ as in <u>da</u> y	/sh/ as in <u>sh</u> ut
/f/ as in <u>fo</u> ur	/ch/ as in <u>ch</u> urch
g equals /g/ as in <u>go</u> /dz/ as in <u>pa</u> ge	/ng/ as in <u>si</u> ng
/h/ as in <u>he</u>	/th/ (voiced) as in <u>th</u> is
j equals /dz/ as in <u>ja</u> il	/th/ (unvoiced) as in <u>th</u> ing
/k/ as in <u>ki</u> ck	oo equals /ū/ as in <u>fo</u> od /u/ as in <u>go</u> od .
/l/ as in <u>Co</u> la	

DIRECTIONS: Read, pronounce, spell,
and use in a sentence the words
listed below.

تعليمات : اقرأ ، ألفظ ، هجي ،
ثم إستعمل الكلمات المذكورة
أدناه في جمل .

copy (ko'pi)

نسخة

length (lenkth)

طول

line gauge (līn gāj)

معيار خط

line length (līn lenkth)

طول خط

picas (pī' kas)

بيكا

points (points)

بنوط (مفردها بنط)

width (width)

عرض

1. copy

any furnished material, words and
pictures to be printed

١ - نسخة
اية مادة مجهزة ، كلمات ،
وصور كي تطبع .

The printer must always measure copy
accurately.

يجب على الطباع قياس نسخة الطباعة بدقة .

2. length

how long a thing is

٢ - طول

ما هو طول شيء

The length of a ruler is 12 inches.

يساوي طول المسطرة ١٢ إنشا .

3. width

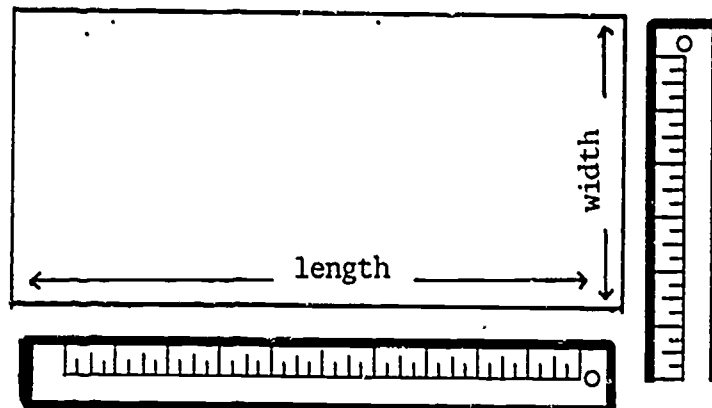
how wide a thing is

٣ - عرض

ما هو عرض شيء

The width of the river is 15 feet.

يبلغ عرض النهر ١٥ قدما .



LANGUAGE PAGE (continued)

4. line gauge

printers' ruler, calibrated in inches, picas, and half picas.

The line gauge is used to measure copy.

٤ - كعيار الخط

تقسم سطرة الطباعة بالبوصات وبيكات، وانصاف بيكات .

يستعمل معيار الخط القياس نسخة .

5. line length

the length of a line of type

The line length of this copy is three inches.

٥ - طول الخط

طول خط الحرف الطباعي

ان طول هذه النسخة

هو ثلاثة بوصات .

6. pica

printers' unit of measure
1 pica equals 1/6 of an inch

Six picas equal one inch.

٦ - بيكا

وحدة قياس لدي الطباعين

ان بيكا واحدة تساوي 1/6 البوصة

البوصة الواحدة تساوي ست بيكات .

7. point

printers' unit of measure
12 points equals 1 pica

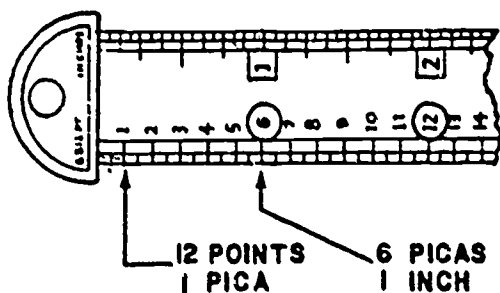
Seventy-two (72) points equal one inch.

٧ - بنط

وحدة قياس لدي الطباعين

ان ١٢ بنطا تساوي بيكا واحدة

ان اثنتان وسبعين (٧٢) بنطا تساوي بوصة واحدة .



To the student:

للطالب

You are going to learn:
to convert inches to picas and points.

سوف تتعلم
كيف تحول بوصات الى بيكات وبنوط .

In order to do this you will be given:
a pencil and a line guage

لكي تقوم بهذا الامر ، سوف تعطي :
قلم رصاص ومعيار خط

You will be doing the following:
reading and measuring the standard
printers' measures:

سوف تقوم بما يلي :
قراءة وقياس مقاييس
الطباعين المعترف بها (المعتمدة)

6 picas = 1 inch
12 points = 1 pica
72 points = 1 inch

٦ بيكات = ١ بوصة
١٢ بنطا = ١ بيكا
٧٢ بنطا = ١ بوصة

We will know you can do this when:
you have completed the post-test
evaluation with 80% accuracy.

سنعرف ان هوسك القيام بهذا الامر عندما :
تكمل "الاختبار اللاحق" التقويمي بدقة
تعاادل ٨٠ ٪ .

STUDENT ACTIVITY 1

DIRECTIONS:

On this worksheet you see several lines. Use your line gauge to measure each line, and write its length in inches, picas and points.

تعليمات :

امامك عدة خطوط على هذه الصفحة . استعمل "معيان الخط" الذي معك لتقييس كل خط ثم اكتب طولها بالبوصات والبيكات والبنوط .

Example: _____ = $1\frac{1}{4}$ inches
 _____ = $7\frac{1}{2}$ picas
 _____ = 90 points

مثل : _____ = $1\frac{1}{4}$ بوصة
 _____ = $7\frac{1}{2}$ بيكات
 _____ = ٩٠ بنطا"

(1)

_____ = inch
 _____ = pica
 _____ = points

(1)

_____ = بوصة
 _____ = بيكا
 _____ = بنطا"

(2)

_____ = inch
 _____ = picas
 _____ = points

(2)

_____ = بوصة
 _____ = بيكات
 _____ = بنطا"

(3)

_____ = inch
 _____ = picas
 _____ = points

(3)

_____ = بوصة
 _____ = بيكا
 _____ = بنطا"

STUDENT ACTIVITY 1 (continued)

(4)

_____ = inch
 _____ = picas
 _____ = points

(٤)

بوصة = _____
 بيكات = _____
 بنطا" = _____

(5)

_____ = inch
 _____ = picas
 _____ = points

(٥)

بوصة = _____
 بيكا" = _____
 بنطا" = _____

(6)

_____ = inch
 _____ = picas
 _____ = points

(٦)

بوصة = _____
 بيكا = _____
 بنطا" = _____

STUDENT ACTIVITY 2

OBJECTIVE:

Given examples, you will learn to identify copy, width of copy, length of copy and line length.

هدف :

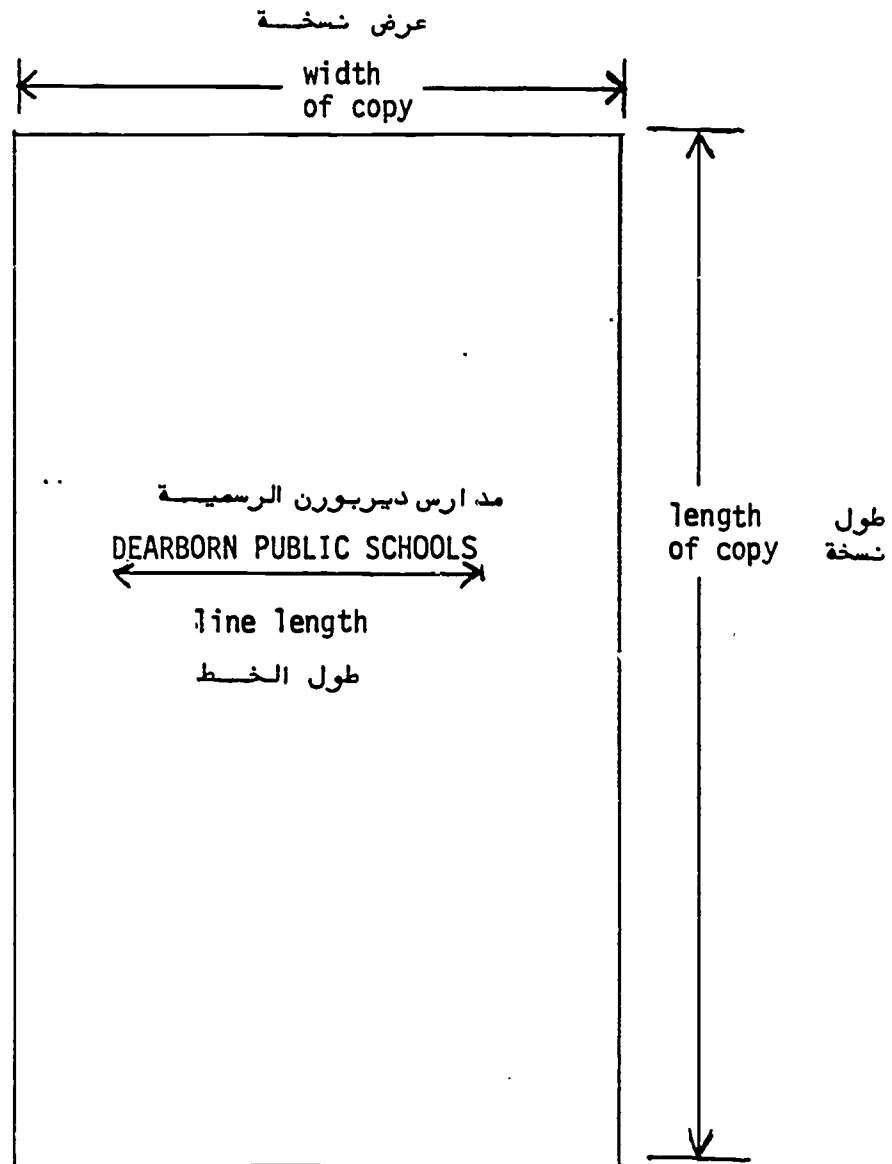
من خلال الامثلة التي ستعطى لك، سوف تتعلم التعرف على :
نسخة ، عرض نسخة ، طول نسخة وعلى طول خط .

DIRECTIONS:

Study this example of length, width, line length, and copy.

تعليمات :

ادرس هذا المثل للطول ، والعرض وطول الخط والنسخة .



The enclosed area above is the 'copy'.

المساحة المسورة اعلاه هي نسخة

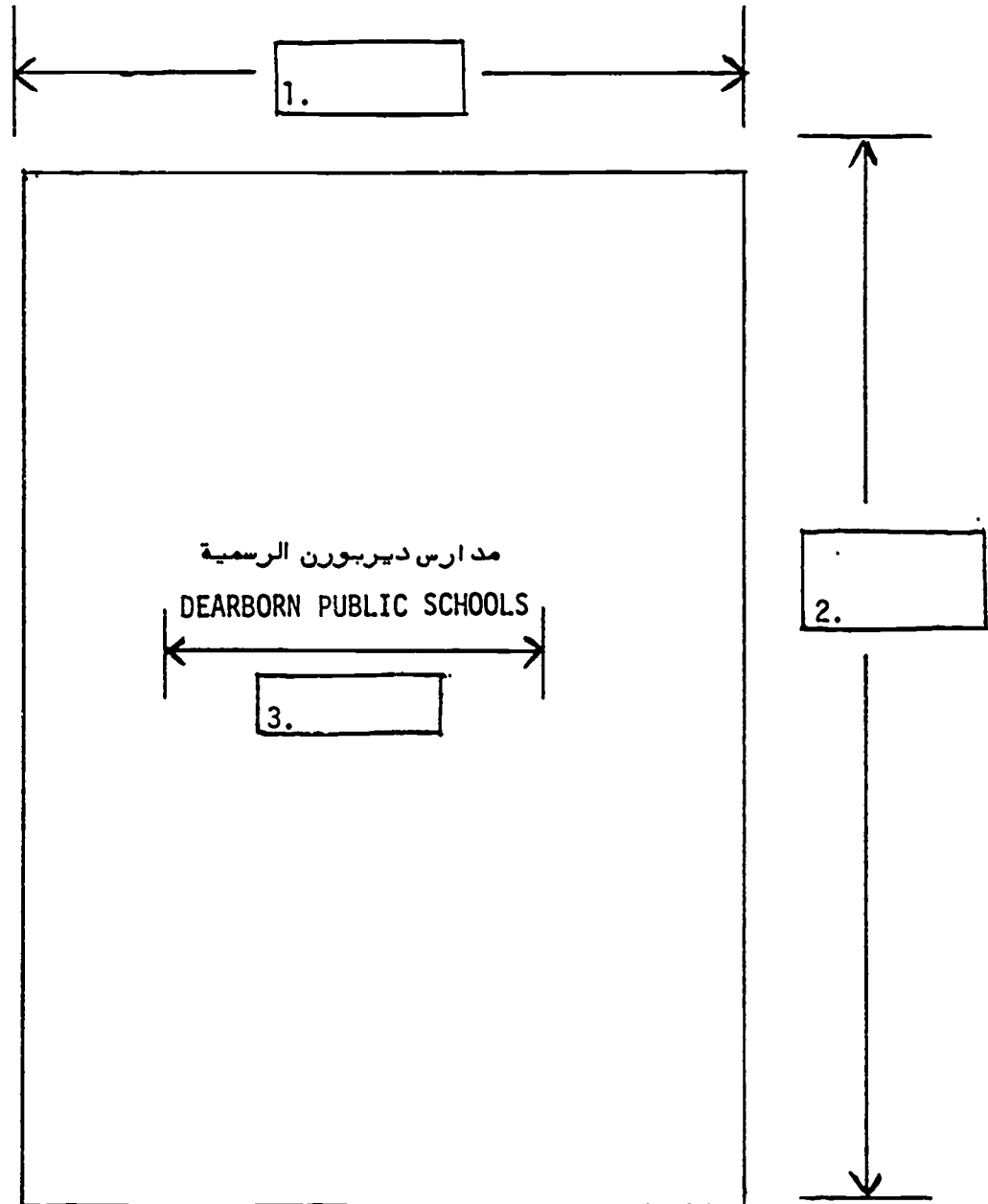
STUDENT ACTIVITY 2 (continued)

DIRECTIONS:

On the example below fill in the boxes with the correct terms.

تعليمات

ضع داخل المستطيلات المرقمة من (١) الى (٤) ما يناسبها من عبارات .



The enclosed area above is the:

4.

المنطقة المسوّرة اعلاه هي :

STUDENT ACTIVITY 3

DIRECTIONS:

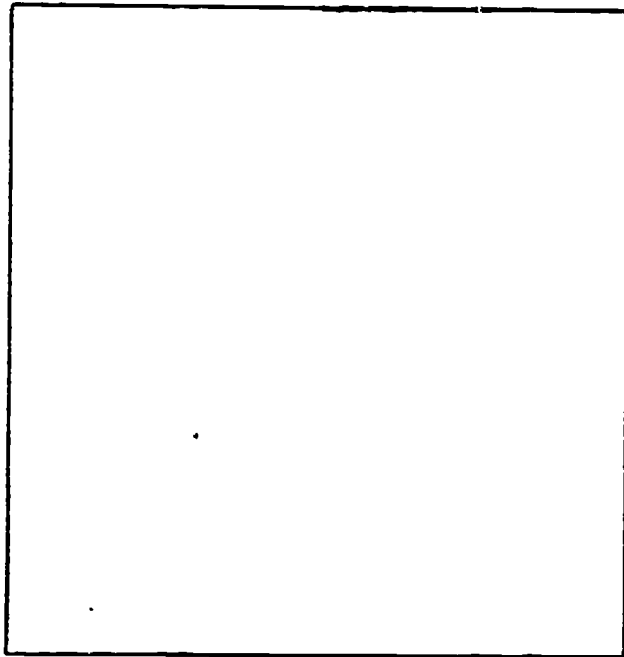
Using a line gauge, measure the width of the copy in inches.

- a. The width is _____ inches.
 b. The width is _____ picas.

تعليمات :

مستعملًا "معياري الخط"، قس عرض النسخة بالبوصة .

- أ - العرض يساوي _____ بوصة
 ب - العرض يساوي _____ بيكات



STUDENT ACTIVITY 4

DIRECTIONS:

Using a line gauge measure the length
in picas.

تعليمات

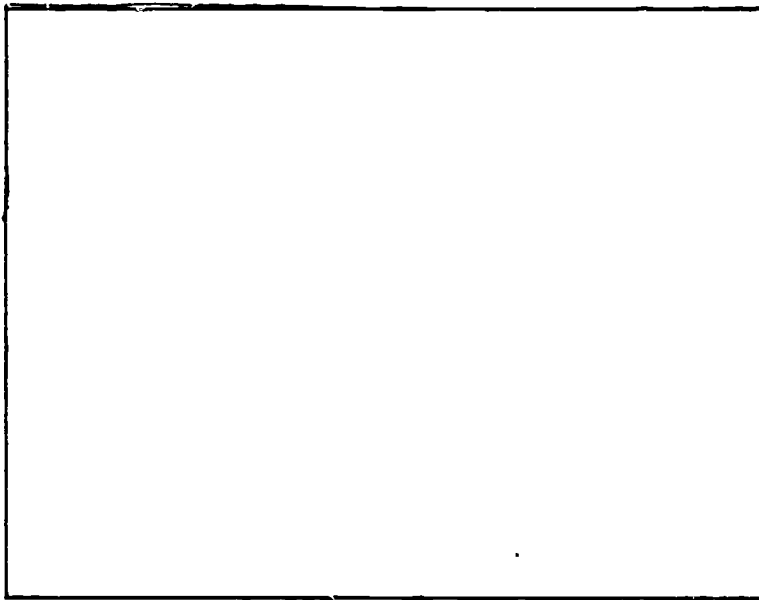
استعمل معيار الطول لقياس
الطول بالببكا .

a. The length is _____ picas.

أ - يبلغ الطول _____ ببكا .

b. The length is _____ inches.

ب - يبلغ العرض _____ بوصات .



STUDENT ACTIVITY 5

DIRECTIONS:

Using a line guage measure the line
length in picas, points and inches.

تعليمات

استعمل معيار الطول لقياس طول
الخط بالبيكا والبونط والبوصة .

- a. The line length is _____ picas. ا - يبلغ طول الخط _____ بيكا "
- b. The line length is _____ points. ب - يبلغ طول الخط _____ بونطا "
- c. The line length is _____ inches. ج - يبلغ طول الخط _____ بوصات

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EVALUATION

Use pretest for post-test evaluation.

OPTIONAL HOMEWORK ACTIVITY:

Have the students bring to class examples from newspapers or magazines copy of different advertisements, showing the various dimensions: width, length, line length.

ANSWER KEY

STUDENT ACTIVITY 1

1. $\frac{3}{4}$ inch
4 $\frac{1}{2}$ picas
54 points
2. 1 $\frac{1}{2}$ inch
9 picas
108 points
3. 2 inches
12 picas
144 points
4. $\frac{1}{2}$ inch
3 picas
36 points
5. 2 $\frac{1}{4}$ inch
13 $\frac{1}{2}$ picas
162 points
6. $\frac{1}{4}$ inch
1 $\frac{1}{2}$ picas
18 points

STUDENT ACTIVITY 2

1. width
2. length
3. line length
4. copy

STUDENT ACTIVITY 3

- a. 3 $\frac{1}{4}$
- b. 19 $\frac{1}{2}$

STUDENT ACTIVITY 4

- a. 18
- b. 3

STUDENT ACTIVITY 5

- a. 12
- b. 144
- c. 2

EVALUATION

1. 24
2. 2
3. 72
4. 36
5. 144
6. $\frac{1}{2}$
7. 48
8. 1 $\frac{1}{2}$
9. 21
10. 108

SUPPLEMENTARY MATERIALS

Printing Layout and Design
by Delmar

Fordson Print Shop

Photo Offset Fundamentals
by John E. Cogoli

Fordson Print Shop

Overhead Transparency
(Student Activity 2)

Fordson Print Shop