

# PERFORMING BASIC PROCEDURES

## A-10

### MEASUREMENT OF LINES & ANGLES

#### OVERVIEW

Drawings must be done accurately. Therefore, the drafter's most important tool is the scale. With proper use of a scale, drafters can reduce or enlarge any drawing they are assigned to complete.

There are various types of scales used by drafters. The requirements of the customer will require one of the following: architectural, civil, mechanical, or metric scale. Drawings in class will use either mechanical or metric scales. Therefore, we will use inches or millimeters on our drawings. It is important to check the titleblock FIRST, to see which unit of measurement is being used on each drawing!

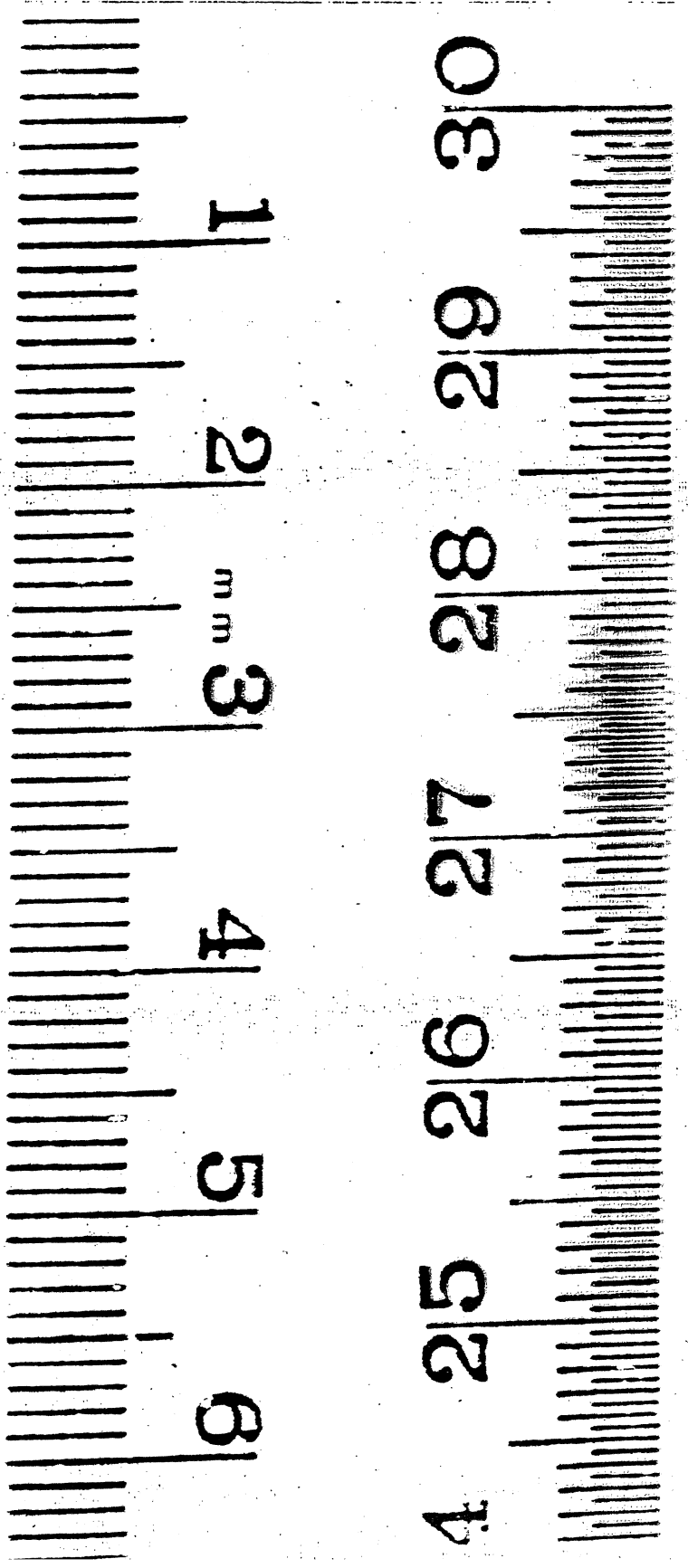
Measurements are read and given in thousandths of an inch, millimeters, or both per the customer's requirements.

When using a scale, make sure you begin measuring from the correct spot on the scale. All measurements start at 0, **not** the 1 inch mark. Always take 3 readings to insure accuracy.

**NEVER use a scale to draw a line!** This practice will result in a loss of accuracy of your scale and immediate destruction of your drawing or sketch.

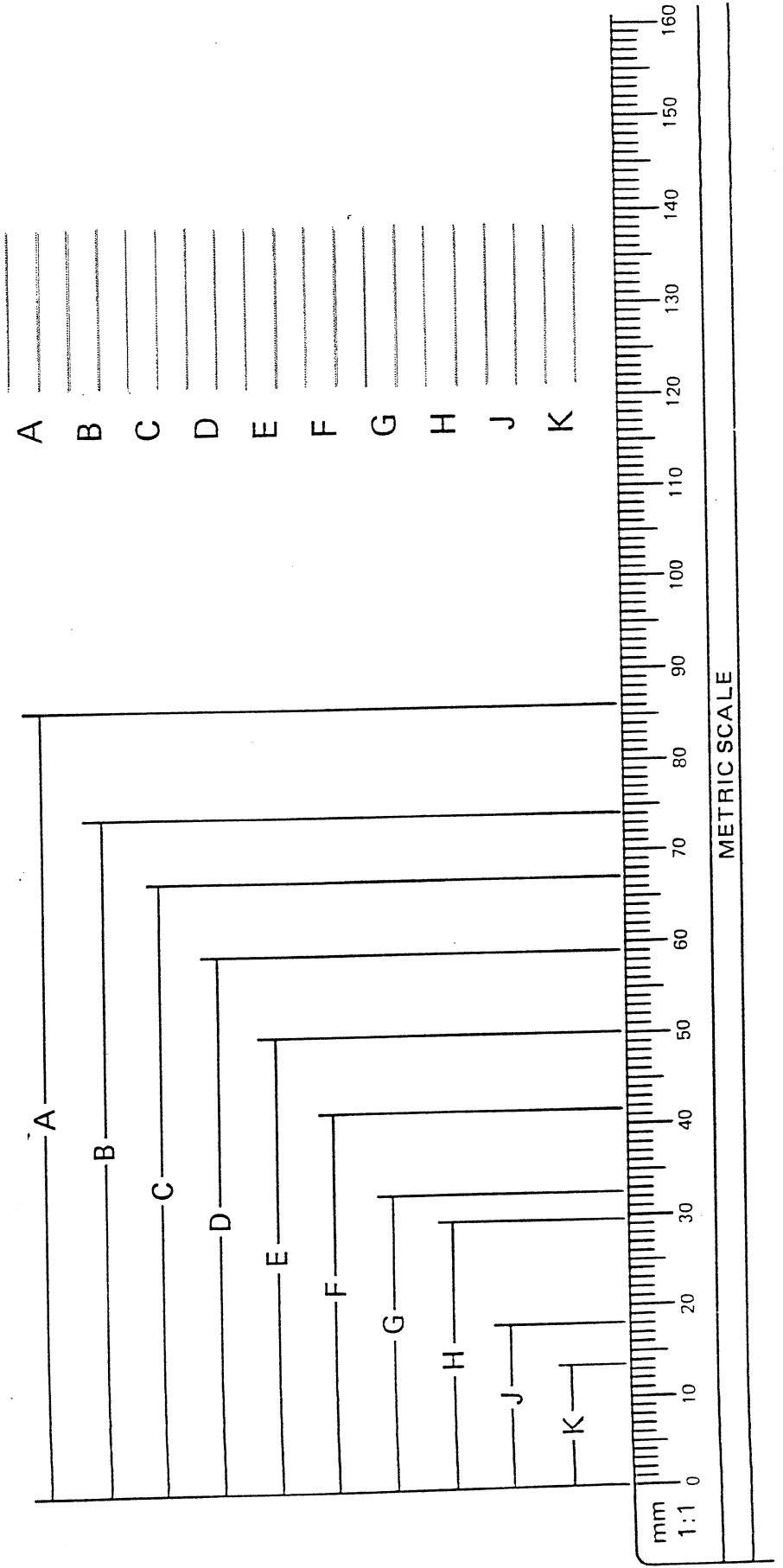
Never place a compass or dividers on the scale. Instead, mark off the desired distance along a straight line, then open up the compass or dividers to the desired distance and transfer the measurement to your drawing.

03 62 82 22 92 52 4



# METRIC MEASUREMENT SCALE

Directions: Letter the value of each length, A-K, in the space provided for each letter. Passing score 100%





1  
50  
020

1 2 3 4

5 6 7 8 9

1 2 3 4

5 6 7 8 9

1 2 3 4

5 6 7 8 9

1 2 3 4

5 6 7 8 9

1 2 3 4

5 6 7 8 9

6 8

5 6 7 8

4 5

3 4

2 3

1 2

8 9

7 8

6 7

5 6

4 5

3 4

2 3

1 2

9

8 9

7 8

6 7

5 6

4 5

1

1

2

0

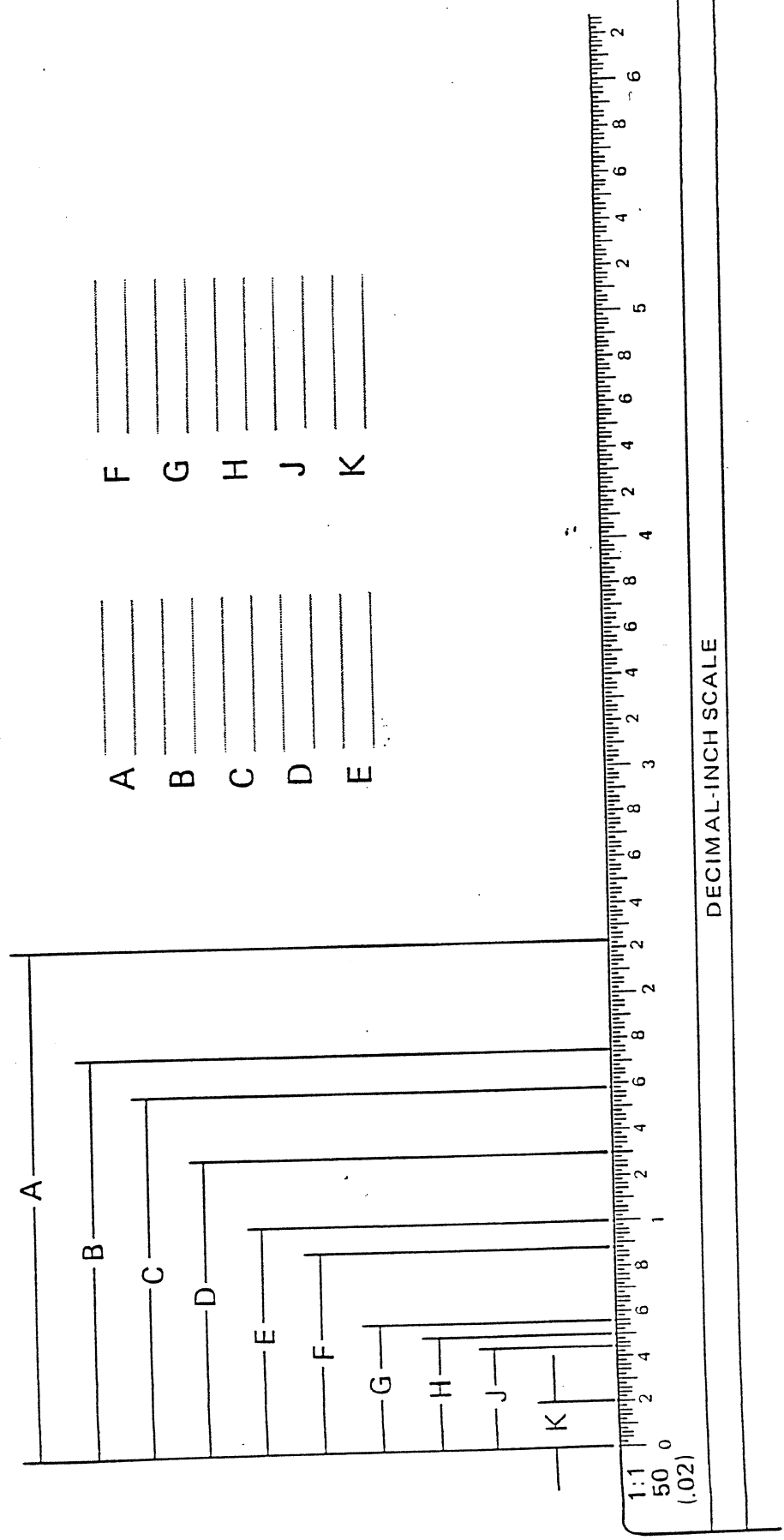
3

6

4

# DECIMAL-INCH MEASUREMENT SCALE

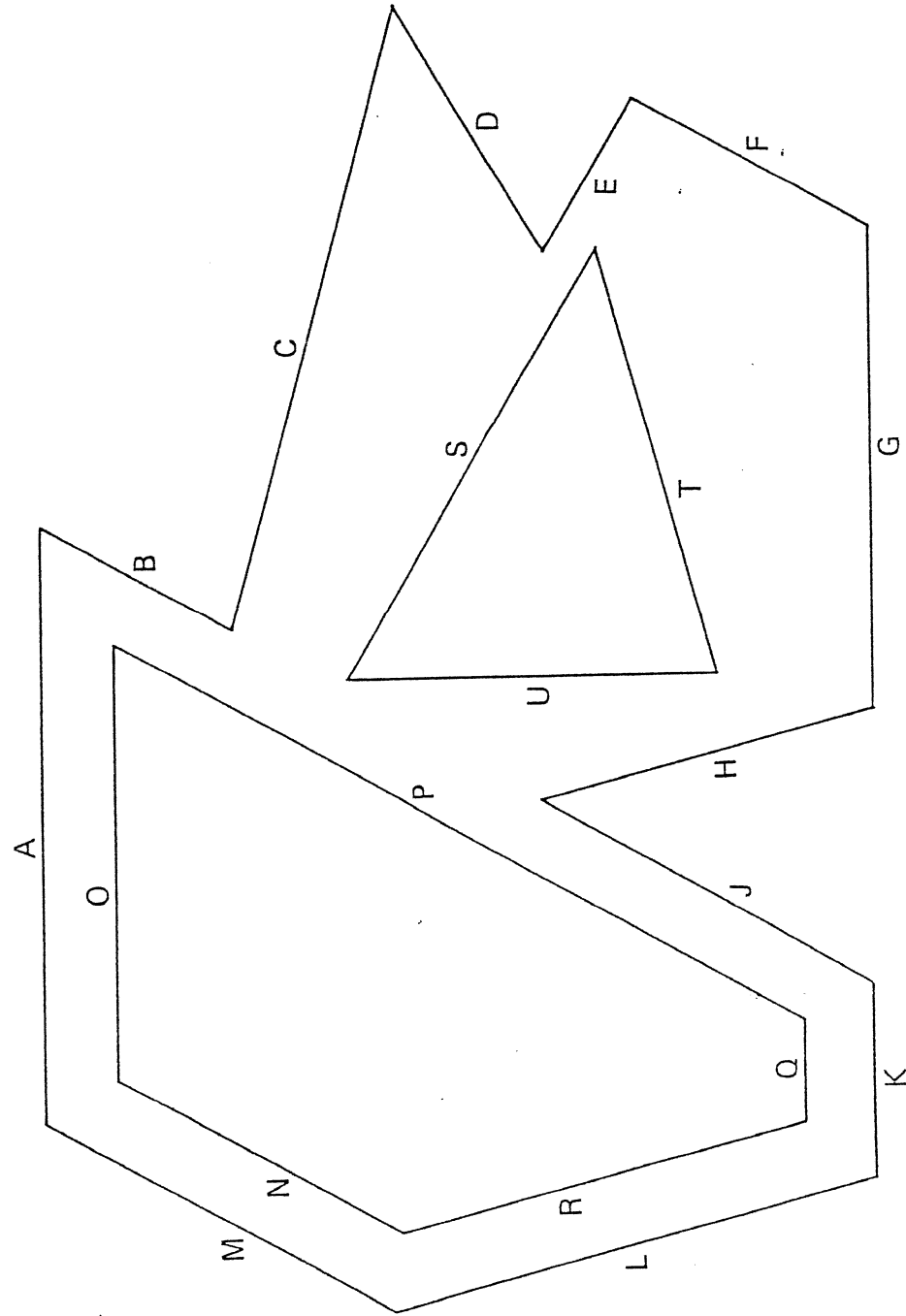
Directions: Letter the value of each length, A-K, in the space provided for each letter. Passing score 100%



DECIMAL-INCH SCALE

## MEASUREMENT PRACTICE

Directions: Measure each individual length **A-K** using metric values. Measure each individual length **L-U** using decimal-inch values. Letter the value of each length, in the space provided for each letter. Passing score 100%



A

B

C

D

E

F

G

H

I

J

L

M

N

O

P

Q

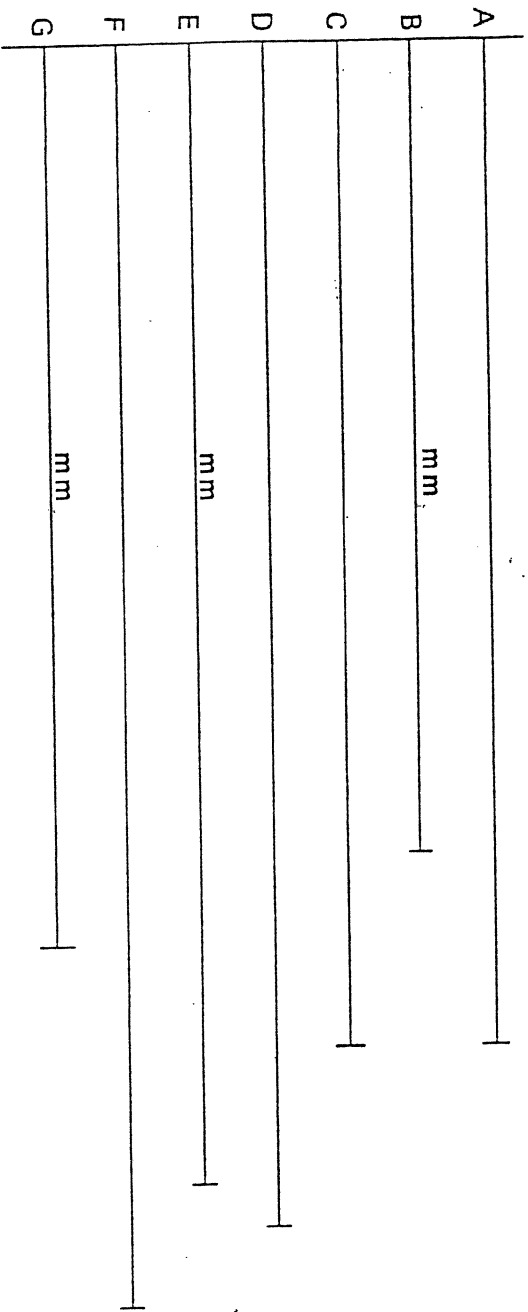
R

S

T

U

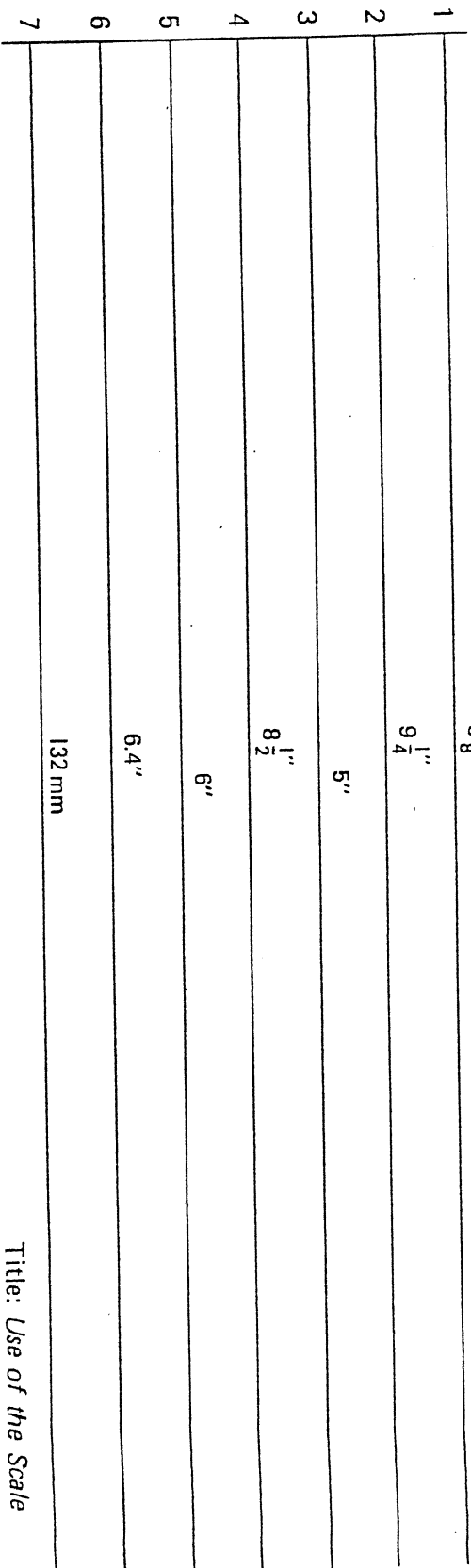
1. Measure each line with the scale indicated and place your answers in the table shown at the right. Use guide lines for all lettering. Use 1/8-in. letters.



LINE	LENGTH
A	
B	
C	
D	
E	
F	
G	

2. On lines 1, 2, 3, 4, 5, 6, and 7 lay off distances called for

LAY OFF THESE DISTANCES



Title: *Use of the Scale*

NAME OF SCHOOL \_\_\_\_\_

DRAWN BY: \_\_\_\_\_  
DATE: \_\_\_\_\_