

DUE DATE \_\_\_\_\_ NAME \_\_\_\_\_

ENGR/DRAFT 105 Assignment #8, Scales

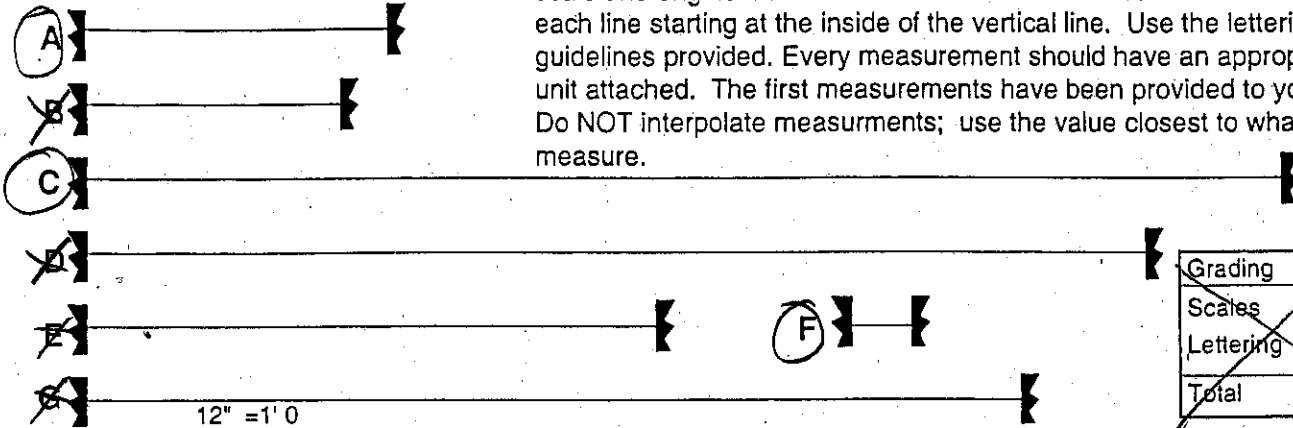
Complete the 3 sheets on scales (numbers 10, 11, 12). Write your numbers clearly and neatly.

**Staple this sheet to the front of your drawings in the correct order. Write your name at the top of the page. Write your name on each drawing.**

Just do rows A, C and F

# ARCHITECT'S and ENGINEER'S SCALE EXERCISE 10

Directions: Measure lines A through F with both the appropriate architect's scale and engineer's scale as indicated below. Measure the length of each line starting at the inside of the vertical line. Use the lettering guidelines provided. Every measurement should have an appropriate unit attached. The first measurements have been provided to you. Do NOT interpolate measurements; use the value closest to what you measure.



Grading	
Scales	/10
Lettering	/5
Total	/15

ARCHITECT'S SCALE

	12" = 1' 0 (Full Scale)	1/8" = 1'	3/16" = 1'	3" = 1'	1-1/2" = 1'	1/4" = 1'	1" = 1'
A							
B							
C							
D							
E							
F							
G							

ENGINEER'S SCALE

	1" = 1" (Full Scale)	1" = 200 ft	1" = 4'	1" = 3 inches	1" = 500'	1" = 60'	1" = 10 miles
A							
B							
C							
D							
E							
F							
G							

Name(3/16" letters)

# RATIO SCALES

In all assignments, first draw mechanically 3/16" guidelines for each answer. Express each answer using freehand lettering

ASSIGNMENT 1: Convert each of the following relative (ratio) scales into absolute scales. Express each answer as a ratio of 1/value. (For example, the first problem should be expressed as 1/4800) (1 mile=5280')

$$1" = 400 \text{ feet}$$

$$1" = 1 \text{ mile}$$

$$3/16" = 1 \text{ foot}$$

$$3/4" = 1 \text{ foot}$$

$$1" = 30 \text{ feet}$$

$$1" = 5 \text{ feet}$$

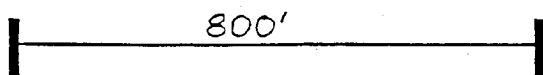
$$3" = 1 \text{ foot}$$

$$1" = 50 \text{ inches}$$

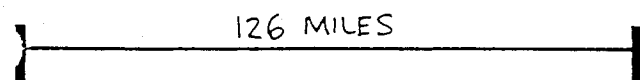
$$1" = 600 \text{ feet}$$

$$1/4" = 1 \text{ foot}$$

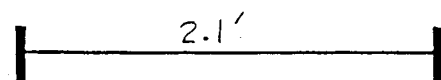
ASSIGNMENT 2: Each of the following lines has a given length. Determine the engineer's scale used in each line. Express in the form  $1" = x'$  or similar.



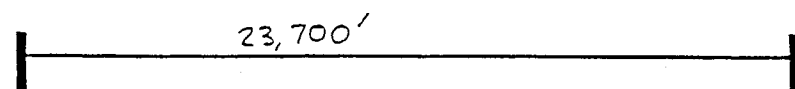
Scale:



Scale:



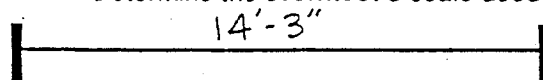
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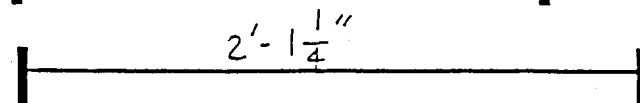
Scale:

ASSIGNMENT 3: Each of the following lines has a given length.

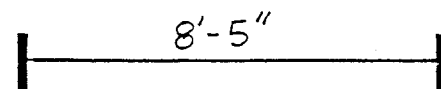
Determine the architect's scale used in each line. Express your answer in the form  $\frac{x''}{y} = 1'$



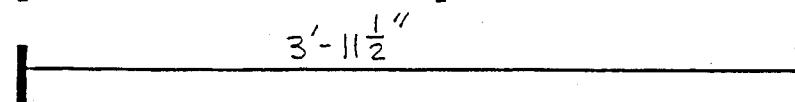
Scale:



Scale:



Scale:



Scale:

Name (3/16" letters)

12

# CONVERTING ABSOLUTE SCALES TO RATIO SCALES

all assignments, first draw mechanically 3/16" guidelines for each answer. Express each answer using freehand lettering

Convert each of the following absolute scales into relative (ratio) scales. Express each answer in appropriate architect's or engineer's scale notation.. (Used for conversions: 1 foot = 12 inches, 1 mile=5280')

## ARCHITECT'S SCALE:

1:12

1:4

1:32

1:128

1:96

1:48

## ENGINEER'S SCALE:

1:240

1:4000

1:36000

1:60 (list two different engineer's scale options)

1:12,000

1:72