

- 1) Why would a person building a house need to make a scale drawing of it before actually building it?

They would want to plan out the building, know exactly how big every part of the house is, and where everything exactly goes before it is built so no mistakes are made.

- 2) Give an example of each of the following:

a) Ratio $\frac{2}{3}$ _____

b) Proportion $\frac{4}{5} = \frac{x}{9}$ _____

- 3) Draw a line for each measurement below.

a) $\frac{7}{8}$ inches _____

b) ~~1~~ decimeters = _____

c) $1\frac{7}{16}$ inches = _____

d) $6\frac{3}{4}$ inches = _____

e) 40 mm = _____

f) $1\frac{1}{4}$ inches = _____

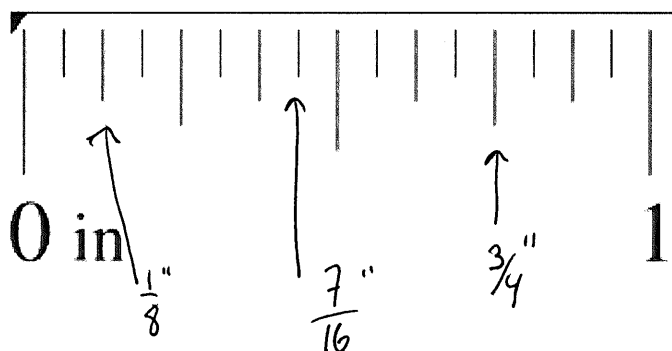
4) Give another measurement that is equal to the following measurements.

a) 20 millimeters = 2 centimeters

b) $\frac{3}{4}$ of an inch = $\frac{6}{8} \text{ ''}$, $\frac{12}{16} \text{ ''}$

c) $\frac{10}{16}$ inches = $\frac{5}{8} \text{ ''}$

5) Draw an arrow and show where $\frac{7}{16}$ inches, $\frac{3}{4}$ inches, and $\frac{1}{8}$ inch are.



6) Which measurement is bigger? Write down which one is bigger...OR, are the equal???

a) 5 mm OR $\frac{9}{16}$ inches

Which is bigger? $\frac{9}{16} \text{ ''}$ OR, are they equal? _____

b) $1\frac{3}{8}$ inches OR $1\frac{1}{2}$ inches

Which is bigger? $1\frac{1}{2} \text{ ''}$ OR, are they equal? _____

c) 6 inches OR 90 mm

Which is bigger? 6 '' OR, are they equal? _____

Continued... Which measurement is bigger? Write down which one is bigger...OR, are they equal???

d) 13 yards OR 14 Meters

Which is bigger? 14 meters OR, are they equal? _____

e) 5,280 feet OR 1 mile

Which is bigger? _____ OR, are they equal? Equal

f) 18 inches OR 50 cm

Which is bigger? 50 cm OR, are they equal? _____

7) Convert the following dimensions to the indicated amount. (1 point each)

a) 20 yards to feet.

$$\frac{20 \text{ yds}}{1} \cdot \frac{3 \text{ ft}}{1 \text{ yds}} = \textcircled{60 \text{ ft}}$$

b) 12 meters to feet:

$$\frac{12 \text{ m}}{1} \cdot \frac{3.28 \text{ ft}}{1 \text{ m}} = 39.36 \text{ ft}$$

c) 6 miles to meters.

$$\frac{6 \text{ mi}}{1} \cdot \frac{5280 \text{ ft}}{1 \text{ mi}} \cdot \frac{1 \text{ m}}{3.28 \text{ ft}} = \frac{31,680 \text{ m}}{3.28}$$
$$= \textcircled{9658.54 \text{ m}}$$

d) 8 feet to centimeters:

$$\frac{8 \text{ ft}}{1} \cdot \frac{12 \text{ in}}{1 \text{ ft}} \cdot \frac{2.54 \text{ cm}}{1 \text{ in}} = \textcircled{243.84 \text{ cm}}$$

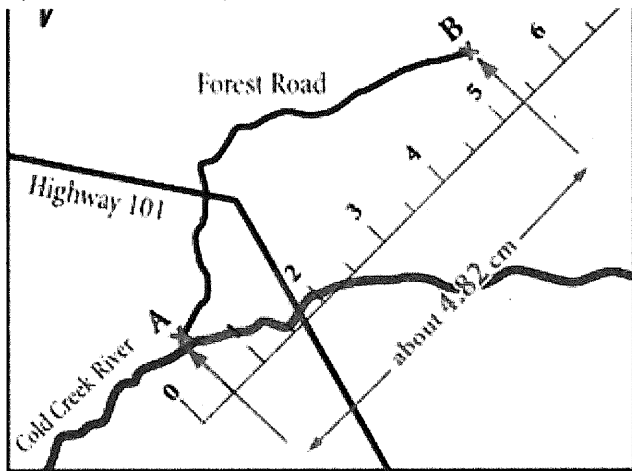
- 8) Use the quarter-inch scale on your architectural ruler to indicate the length of each line in real life.
(1 point each)

Real life measurement: 10'

Real life measurement: 5' 9"

Real life measurement: 3' 7"

- 9) Points A and B on Forest Road are about 4.82 cm apart on the map. If the scale is 1 cm : 300 yards, how far apart are the two points?



$$\frac{1 \text{ cm}}{300 \text{ yds}} = \frac{4.82 \text{ cm}}{x \text{ yds}}$$

$$x = 1446 \text{ yds}$$