

Name: _____

Math 10W Chapter 3.1-3.2 Assessment Quiz

*show all of your work.

1. Convert six and a half feet to inches.

$$1 \text{ ft} = 12 \text{ inches}$$

$$6.5 \text{ ft} \times 12 = 78 \text{ inches}$$

2. Convert 8m to feet.

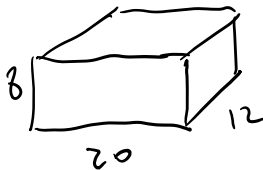
$$1 \text{ ft} = 0.3048 \text{ m}$$

$$\frac{1 \text{ ft}}{0.3048 \text{ m}} \times \frac{x \text{ ft}}{8 \text{ m}}$$

$$0.3048 x = 8$$

$$x = \frac{8}{0.3048} = 26.2 \text{ ft}$$

3. Sara is painting her bedroom. The room measures 20 feet by 12 feet by 8 feet tall. If she does not need to paint the floor and ceiling, what area will be painted. Express your answer in square feet and square metres.



$$2 \text{ SIDE WALLS} = 20 \times 8 \times 2 = 320 \text{ ft}^2$$

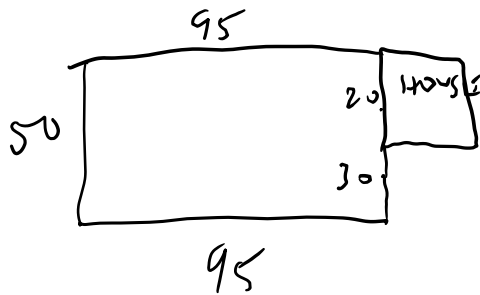
$$2 \text{ OTHER SIDE WALLS} = 12 \times 8 \times 2 = 192 \text{ ft}^2$$

$$\text{TOTAL} = 320 + 192 = 512 \text{ ft}^2$$

$$1 \text{ ft} = 0.3048 \text{ m}$$

$$1 \text{ ft}^2 = 0.0929 \text{ m}^2 \quad \text{so } 512 \times 0.0929 = 47.6 \text{ m}^2$$

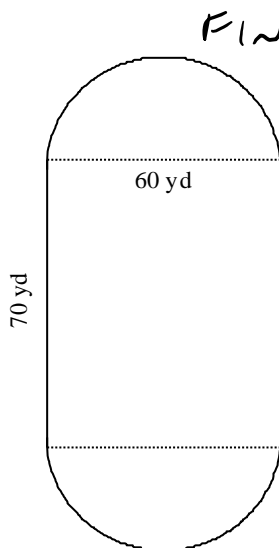
4. You want to build a fence around your front yard. The yard measures 95 yards long and 50 yards wide. Your house, which is 20 yards wide, runs along the width edge of the fence. You will not need any fencing along the width of the house. How much fencing do you need?



$$= 95 + 30 + 95 + 50$$

$$= 270 \text{ yd}$$

5. How many laps of this track must Kabir complete in order to run 2.5 miles?



FIND PERIMETER OF TRACK

- 2 SIDES = $70 + 70 = 140$ YARDS
- 2 ENDS MAKE A CIRCLE.

$$\text{CIRCUMFERENCE OF A CIRCLE} = \pi d$$

$$= \pi (60) = 188.5 \text{ yd}$$

$$1 \text{ LAP} = 188.5 + 140 = 328.5 \text{ yd}$$

$$1 \text{ MILE} = 1760 \text{ YARDS}$$

$$2.5 \text{ MILE} = 2.5 \times 1760 = 4400 \text{ yd}$$

$$\text{So } \frac{4400 \text{ yd}}{328.5 \text{ yd/LAP}} = 13.4 \text{ LAPS}$$