

Math 10

Lesson 6-1 Answers

Lesson Questions

Question 1

a)

$$\text{i) } 7 \text{ yd.} \cdot 3 \text{ ft./yd.} = \mathbf{21 \text{ ft.}}$$

$$\text{ii) } 7 \text{ yd.} \cdot 36 \text{ in./yd.} = \mathbf{252 \text{ in.}}$$

b)

$$\text{i) } 62 \text{ in.} = \frac{62 \cancel{\text{in.}}}{1} \times \frac{1 \text{ ft.}}{12 \cancel{\text{in.}}}$$

$$= \frac{62}{12} \text{ ft.}$$

$$= 5 \frac{2}{12} \text{ ft.}$$

$$= \mathbf{5 \text{ ft. } 2 \text{ in.}}$$

$$\text{ii) } 62 \text{ in.} = 5 \text{ ft. } 2 \text{ in.}$$

$$= \frac{5 \text{ ft.}}{3 \text{ ft./yd.}} 2 \text{ in.}$$

$$= 1 \frac{2}{3} \text{ yd. } 2 \text{ in.}$$

$$= \mathbf{1 \text{ yd. } 2 \text{ ft. } 2 \text{ in.}}$$

Question 2

$$\text{a) } 37 \text{ ft.} = \frac{37 \cancel{\text{ft.}}}{1} \times \frac{1 \text{ yd.}}{3 \cancel{\text{ft.}}}$$

$$= \frac{37}{3} \text{ yd.}$$

$$= \mathbf{12 \text{ yd. } 1 \text{ ft.}}$$

- b) Since the baseboard is sold per yard, he has to buy 13 yd. of material.
 $13 \cdot \$5.99/\text{yd.} = \mathbf{\$77.87}$

Question 3

$$4 \text{ yd.} = 4 \text{ yd.} \cdot 36 \text{ in./yd.} = 144 \text{ in.}$$

$$\frac{144}{8} = \mathbf{18}$$

Tyrell can make 18 bracelets.

Question 4

Set up a proportional ratio:

$$\frac{4750000 \text{ in.}}{1 \text{ in.}} = \frac{x}{1.75 \text{ in.}}$$

$$1.75(4750000) = x$$

$$8312500 \text{ in.} = x$$

$$\rightarrow = \frac{8312500 \cancel{\text{in.}}}{1} \times \frac{1 \cancel{\text{ft.}}}{12 \cancel{\text{in.}}} \times \frac{1 \text{ mi.}}{5280 \cancel{\text{ft.}}}$$

$$= \frac{8312500}{12 \cdot 5280} \text{ mi.}$$

$$= \mathbf{131 \text{ mi.}}$$



Assignment

2. a) Foot b) Inch c) Foot d) Inch e) Mile
3. a) 36 in. b) 189 ft. c) 4 ft.
4. a) 10 560 ft. b) 15 yd. 2 ft. 10 in. c) 1 mi. 703 yd. 1 ft.
5. 165 in. = 4 yd. 1 ft. 9 in.
6. a) 52 ft. = 17 yd. 1 ft. b) \$197.82
7. a) 24 mats
8. No; 21 ft. 9 in. = 7 yd. 9 in.
9. 10 in.
10. a) 39 ft. 2 in. b) 4 rolls c) \$49.96
11. 1062 ft.
12. 62 mi.
13. 28 tulip bulbs
14. 1:2 349 000
15. \$351 000

