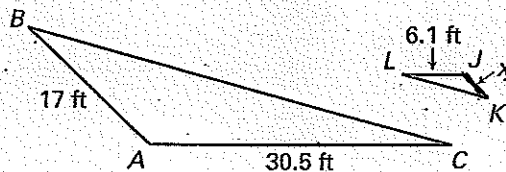


Practice

For use with pages 293-297

Find the specified side length.

1. Given
- $\triangle ABC \sim \triangle JKL$
- , find
- JK
- .



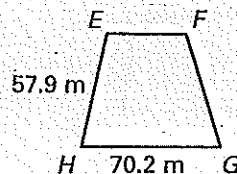
$$\frac{AC}{JK} = \frac{AB}{JL}$$

$$\frac{30.5}{6.1} = \frac{17}{x}$$

$$30.5x = 103.7$$

$$x = 3.4 \text{ ft}$$

2. Given
- $EFGH \sim STUV$
- , find
- UV
- .



$$\frac{EH}{UV} = \frac{FG}{ST}$$

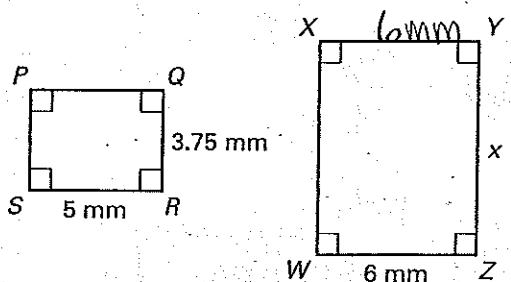
$$\frac{57.9}{19.3} = \frac{70.2}{x}$$

$$57.9x = 1354.86$$

$$x = 23.4 \text{ m}$$

$$UV = 23.4 \text{ m}$$

3. Given
- $PQRS \sim WXYZ$
- , find
- YZ
- .

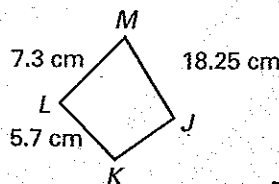


$$\frac{PS}{YZ} = \frac{QR}{WX}$$

$$3.75x = 30$$

$$x = 8$$

$$YZ = 8 \text{ mm}$$



$$\frac{LM}{RS} = \frac{LJ}{PQ}$$

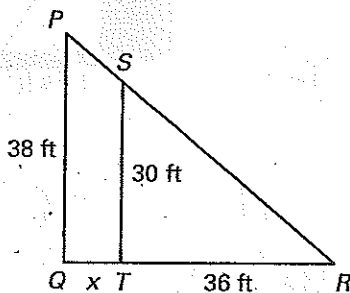
$$\frac{7.3}{18.25} = \frac{5.7}{x}$$

$$7.3x = 104.025$$

$$x = 14.25$$

$$PQ = 14.25 \text{ cm}$$

5. Given
- $\triangle PQR \sim \triangle STR$
- , find
- QT
- .



$$\frac{PQ}{ST} = \frac{QR}{TR}$$

$$1368 = 30(x + 36)$$

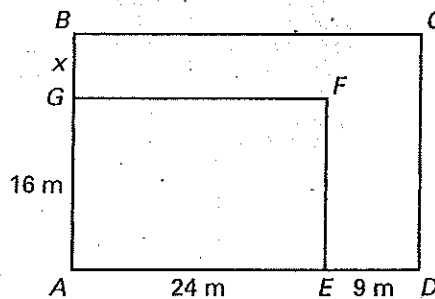
$$1368 = 30x + 1080$$

$$288 = 30x$$

$$x = 9.6$$

$$QT = 9.6 \text{ ft}$$

6. Given
- $ABCD \sim AGFE$
- , find
- GB
- .



$$\frac{AD}{AE} = \frac{AB}{AG}$$

$$\frac{33}{24} = \frac{16 + x}{16}$$

$$528 = 384 + 24x$$

$$144 = 24x$$

$$x = 6$$

$$GB = 6 \text{ m}$$

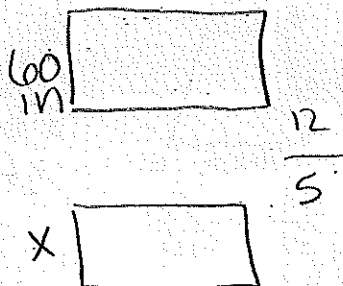
6.5

Continued

Practice

For use with pages 293-297

7. The ratio of a side length of rectangle A to a corresponding side length of rectangle B is 12 : 5. Rectangle A has a side length of 60 inches. Find the corresponding side length of rectangle B.

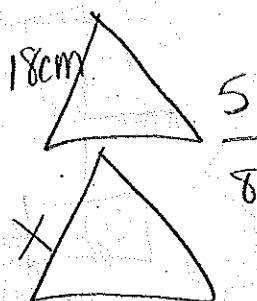


$$\frac{12}{5} = \frac{60}{x}$$

$$12x = 300$$

$$x = 25 \text{ in}$$

8. The ratio of a side length of triangle A to a corresponding side length of triangle B is 5 : 8. Triangle A has a side length of 18 centimeters. Find the corresponding side length of triangle B.



$$\frac{18}{x} = \frac{5}{8}$$

$$5x = 144$$

$$x = 28.8 \text{ cm}$$

9. A farmer who is 72 inches tall is standing beside a silo that has a height of 140 feet. The length of the silo's shadow is 31.5 feet. What is the length of the farmer's shadow?

$$\frac{140}{31.5} = \frac{72}{x}$$

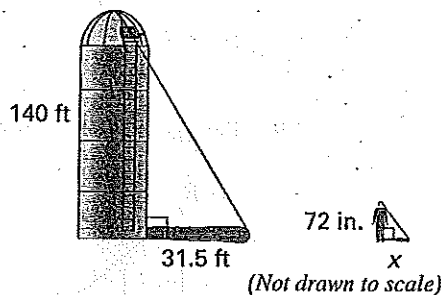
$$140x = 2268$$

$$x = 16.2 \text{ ft}$$

OR $\frac{140}{72} = \frac{31.5}{x}$

$$140x = 2268$$

$$x = 16.2 \text{ ft}$$



OR $\frac{31.5}{x} = \frac{140}{72}$

OR $\frac{31.5}{140} = \frac{x}{72}$

Farmer's Shadow
is 16.2 ft