

Unit 6- Worksheet #2: Use Proportions to Solve Geometric Problems

Complete the statement.

1. If $\frac{6}{x} = \frac{5}{y}$, then $\frac{6}{5} =$ _____

2. If $\frac{x}{12} = \frac{y}{26}$, then $\frac{x}{y} =$ _____

3. If $\frac{x}{4} = \frac{7}{y}$, then $\frac{x+4}{4} =$ _____

4. If $\frac{9}{2} = \frac{x}{y}$, then $\frac{11}{2} =$ _____

Decide whether the statement is true or false.

5. If $\frac{x}{y} = \frac{8}{3}$, then $\frac{y}{x} = \frac{3}{8}$

6. If $\frac{x}{y} = \frac{8}{3}$, then $\frac{3}{x} = \frac{y}{8}$

7. If $\frac{x}{y} = \frac{8}{3}$, then $\frac{x}{8} = \frac{3}{y}$

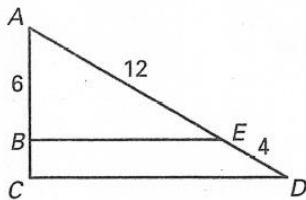
8. If $\frac{x}{y} = \frac{8}{3}$, then $\frac{x}{8} = \frac{y}{3}$

9. If $\frac{x}{y} = \frac{8}{3}$, then $\frac{x+8}{8} = \frac{y+3}{3}$

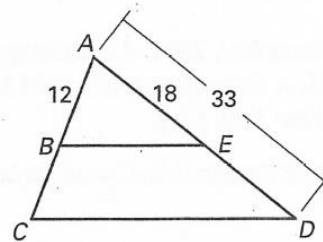
10. If $\frac{x}{y} = \frac{8}{3}$, then $\frac{x+2y}{y} = \frac{14}{3}$

Use the diagram and the given information to find the unknown length.

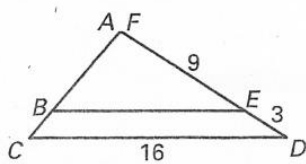
11. Given: $\frac{AB}{BC} = \frac{AE}{ED}$, find BC



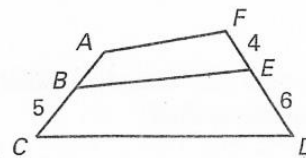
12. Given: $\frac{AB}{BC} = \frac{AE}{ED}$, find BC



13. Given: $\frac{FD}{FE} = \frac{CD}{BE}$, find BE



14. Given: $\frac{AB}{BC} = \frac{FE}{ED}$, find AC



15. You purchase a scale model of a train. The model states that the scale is 1 inch: 5.4 feet.

a.) If the model is 10 inches long, how long is the actual train?

b.) The actual height of the train is 13.5 feet, how tall is the model?

16. On a map, two neighboring towns are 2.4 inches apart. The actual straight line distance between the two towns is 36 miles. What is the scale of the map?

17. In November, 2005, the exchange rate of Canadian dollars to U.S. dollars was 1 to 0.85. A Canadian citizen paid \$12.28 in U.S. dollars for lunch while visiting New York City.

a.) What was the price of the lunch in Canadian dollars?

b.) If the exchange rate were 1.28 Canadian dollars to 1 U.S. dollar, what would have the cost been in Canadian dollars?

18. You buy a 3-D scale model of the Reunion Tower in Dallas, TX. The actual building is 560 feet tall. Your model is 10 inches tall, and the diameter of the dome on your scale model is about 2.1 inches. About how many times as tall as your model is the actual building?