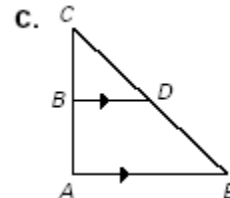
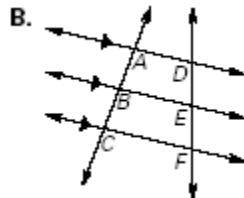
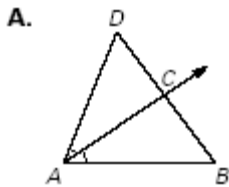


**6.3 Proportionality Theorems**  
**Pre-AP Geometry**

Name \_\_\_\_\_  
 Period \_\_\_\_\_ Date \_\_\_\_\_

**Elaborate**

Three theorems, along with their diagrams and proportions, got all mixed up! Match each theorem with a diagram and a proportion.



D.  $\frac{BC}{CD} = \frac{AB}{AD}$

E.  $\frac{AB}{BC} = \frac{DE}{CD}$

F.  $\frac{AB}{BC} = \frac{DE}{EF}$

**Match each theorem with the diagram and proportion that goes with it:**

1. If a line parallel to one side of a triangle intersects the other two sides, then it divides the two sides proportionally.

Diagram: \_\_\_\_\_ Proportion: \_\_\_\_\_

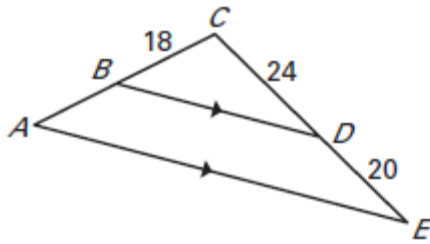
2. If three parallel lines intersect two transversals, then they divide the transversals proportionally.

Diagram: \_\_\_\_\_ Proportion: \_\_\_\_\_

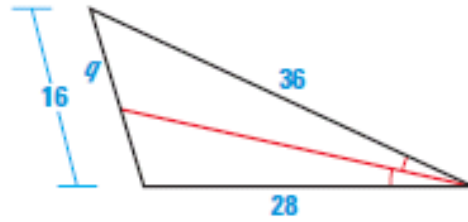
3. If a ray bisects an angle of a triangle, then it divides the opposite side into segments whose lengths are proportional to the lengths of the other two sides.

Diagram: \_\_\_\_\_ Proportion: \_\_\_\_\_

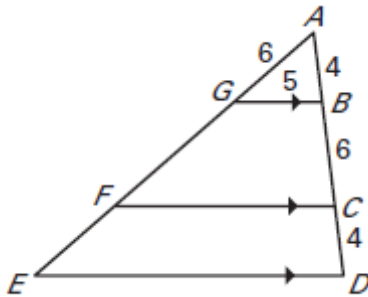
1. Find the length of AB



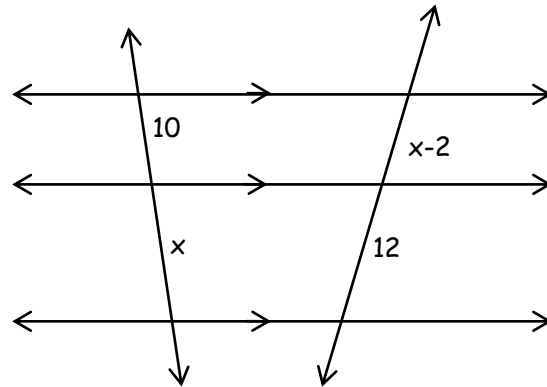
2. Find the value of q.



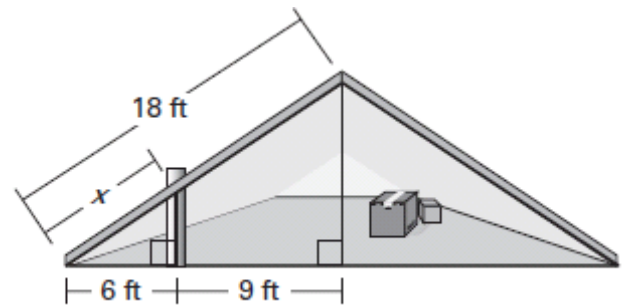
3. Find ED.



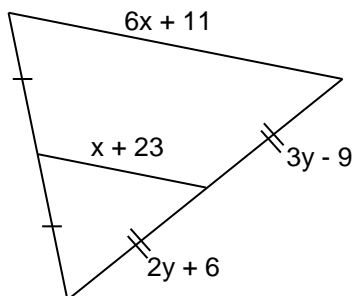
4. Find x.



5. The figure is a diagram of a cross section of the attic of a house. A vent pipe comes through the floor 6 feet from the edge of the house. What is the distance x on the roof, from the edge of the roof to the vent pipe?



6.



7.

