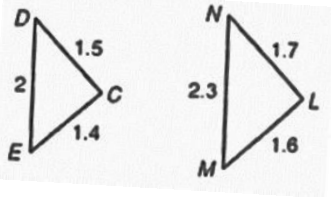


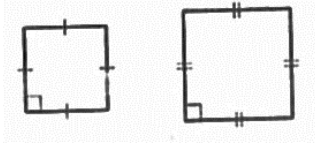
**Directions: Determine whether the polygons are similar. If so, write the similarity ratio and the similarity statement. If not, explain why not.**

1)  $\triangle CDE$  and  $\triangle LMN$

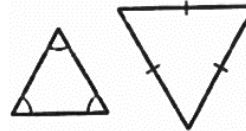


**Directions: Tell whether the polygons must be similar based on the information in the given figures.**

2)

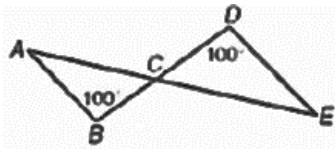


3)

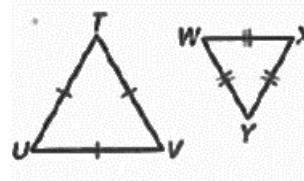


**Directions: Explain why the triangles are similar (what postulate supports the similarity), & write a similarity statement.**

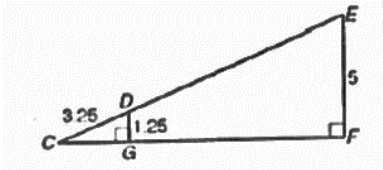
4)



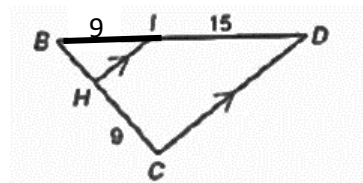
5)



6) Explain why the triangles are similar, & find DE.

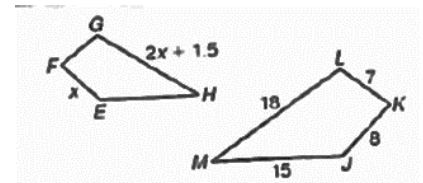


7) What is BH?

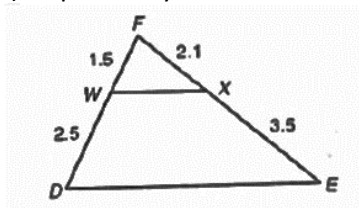


**Directions: Solve.**

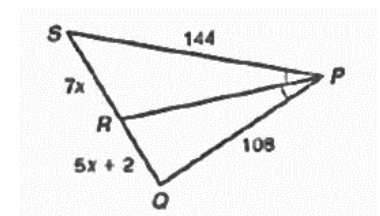
8) What is FE if  $FGHE \sim KLMJ$ ?



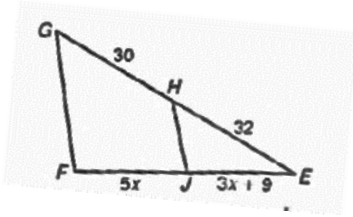
9) Explain why  $\overline{WX} \parallel \overline{DE}$ .



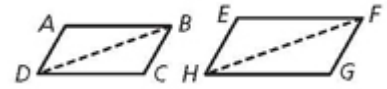
10) What is SQ?



11) Is  $\overline{GF} \parallel \overline{HJ}$  if  $x = 5$ ? Explain.



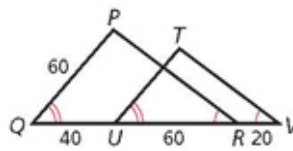
12) Parallelogram  $ABCD \sim$  Parallelogram  $EFGH$ . Which similarity postulate or theorem lets you conclude that  $\triangle BCD \sim \triangle FGH$ ?



13) If 6, 8, and 12 and 15, 20, and  $x$  are the lengths of the corresponding sides of two similar triangles, what is the value of  $x$ ?

14) What is the length of  $\overline{TU}$ ?

- (A) 36
- (B) 40
- (C) 48
- (D) 90



15) What value of  $y$  makes the two rectangles similar?

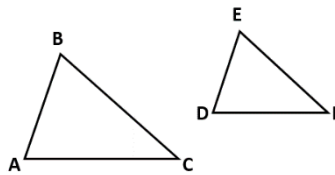


16) Can side lengths 1.5, 2.5, 3.5 and 6, 10, 12 be corresponding sides of similar triangles?

17) Complete the proof.

Given:  $\angle B \cong \angle E$ ;  $\frac{AB}{DE} = \frac{BC}{EF}$

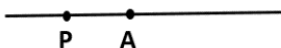
Prove:  $\angle A \cong \angle D$



18) What can't we use CPCTC to prove  $\angle A \cong \angle D$  in question #17?

**Directions: Complete the construction using a straightedge and a compass.**

19)  $\overline{PA} \perp \overline{MA}$



20)  $\overline{BE} \parallel \overline{GO}$

