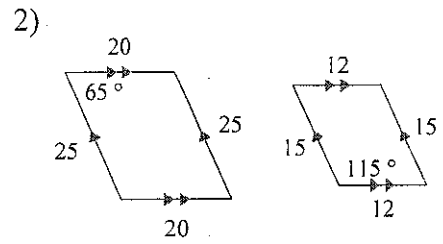
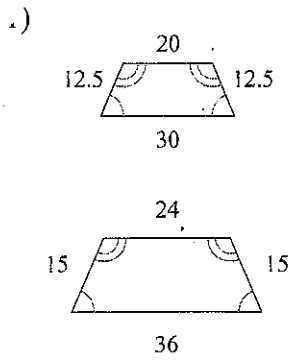
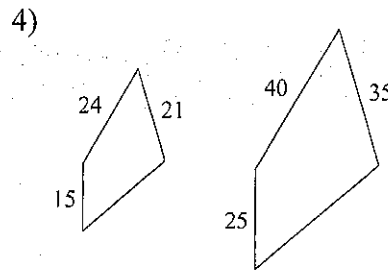
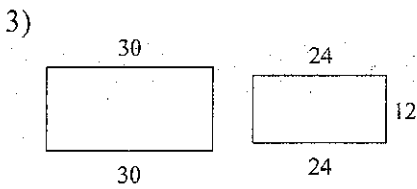


Similarity Homework

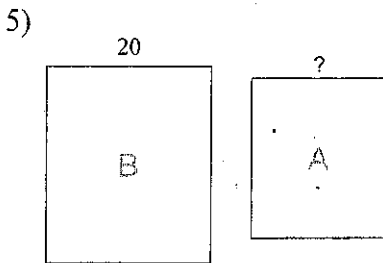
State if the polygons are similar.



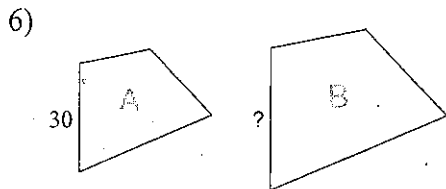
The polygons in each pair are similar. Find the scale factor of the smaller figure to the larger figure.



The polygons in each pair are similar. Find the missing side length.

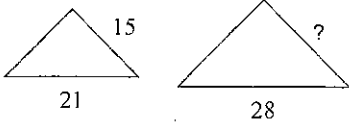


scale factor from A to B = 3 : 4

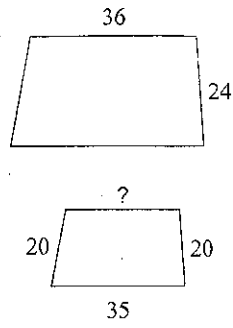


scale factor from A to B = 5 : 6

7)

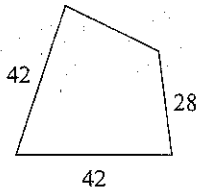
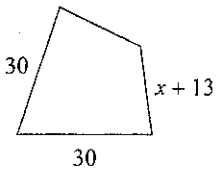


8)

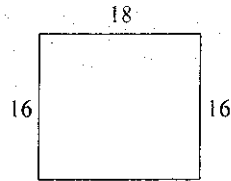
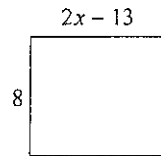


Solve for x . The polygons in each pair are similar.

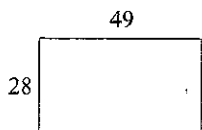
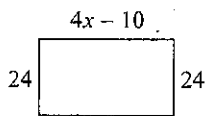
9)



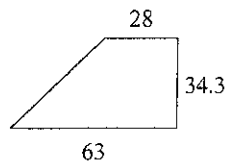
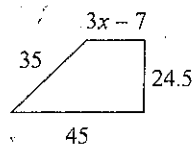
10)



11)



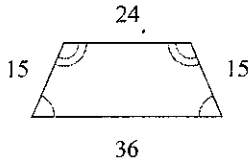
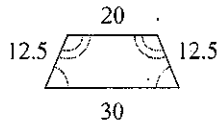
12)



Similarity Homework

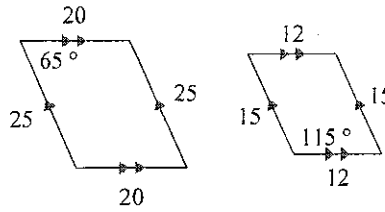
State if the polygons are similar.

1)



Similar

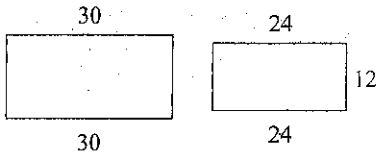
2)



Similar

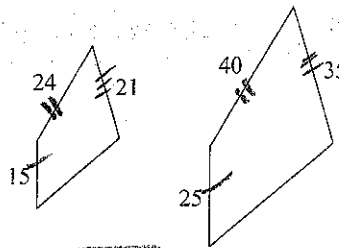
The polygons in each pair are similar. Find the scale factor of the smaller figure to the larger figure.

3)



$$\frac{S}{B} = \frac{24}{30} = \boxed{\frac{4}{5}}$$

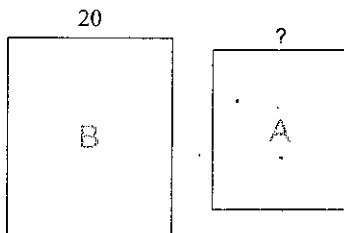
4)



$$\frac{15}{25} = \boxed{\frac{3}{5}}$$

The polygons in each pair are similar. Find the missing side length.

5)

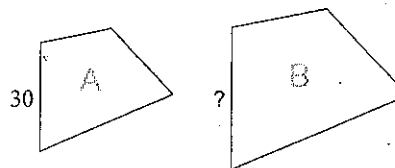


scale factor from A to B = 3 : 4

$$\frac{A}{B} = \frac{3}{4} = \frac{x}{20}$$

$$4x = 60 \quad \boxed{x = 15}$$

6)



scale factor from A to B = 5 : 6

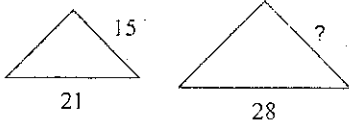
$$\frac{A}{B} = \frac{5}{6} = \frac{30}{x}$$

$$180 = 5x$$

-1-

$$\boxed{x = 36}$$

7)

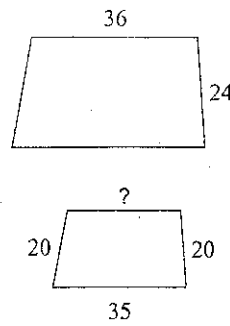


$$\frac{21}{28} = \frac{15}{x}$$

$$420 = 21x$$

$$\boxed{x=20}$$

8)



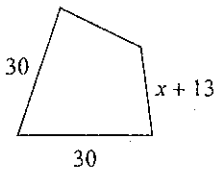
$$\frac{36}{x} = \frac{24}{20}$$

$$24x = 720$$

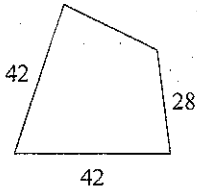
$$\boxed{x=30}$$

Solve for x . The polygons in each pair are similar.

9)



~~$$\frac{30}{42} = \frac{x+13}{20}$$~~



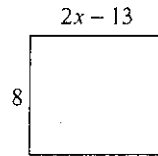
$$840 = 42(x+13)$$

$$840 = 42x + 546$$

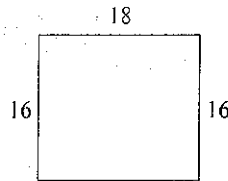
$$294 = 42x$$

$$\boxed{x=7}$$

10)



~~$$\frac{2x-13}{18} = \frac{8}{16}$$~~



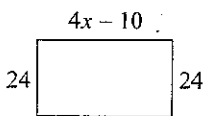
$$16(2x-13) = 144$$

$$32x - 208 = 144$$

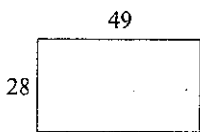
$$32x = 352$$

$$\boxed{x=11}$$

11)



~~$$\frac{4x-10}{49} = \frac{24}{28}$$~~



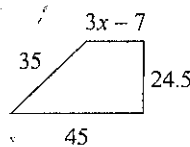
$$1176 = 28(4x-10)$$

$$1176 = 112x - 280$$

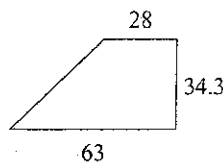
$$1456 = 112x$$

$$\boxed{x=13}$$

12)



~~$$\frac{3x-7}{28} = \frac{24.5}{34.3}$$~~



$$686 = 34.3(3x-7)$$

$$686 = 102.9x - 240.1$$

$$926.1 = 102.9x$$

$$\boxed{x=9}$$