

Similarity Ch 8 Review for Test 8

1. GRAPH $\triangle ABC$ and its image after a dilation of 75%

$A(-8, 2)$ $B(0, 4)$ $C(-2, -4)$

2. Graph $\triangle ABC$ and its image after the similarity transformation:

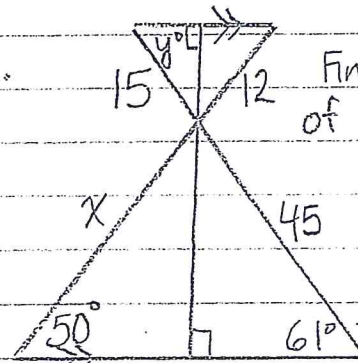
- dilation with $K = 2$ $A(-4, 0)$ $C(1, -2)$
- reflection in y -axis $B(0, 2)$

3. Two polygons are similar. If the larger perimeter is 48 in and the side ratio is $\frac{3}{4}$ find the smaller perimeter.

4. The ratio of two corresponding sides in two similar pentagons is $\frac{5}{2}$. The smaller area is 40 in^2 . Find the other area.

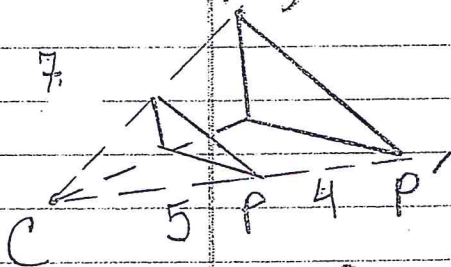
5. A magnifying glass creates an image 12x larger than the actual size. Through the glass you see an ant 78 mm long. What is the actual length?

6.



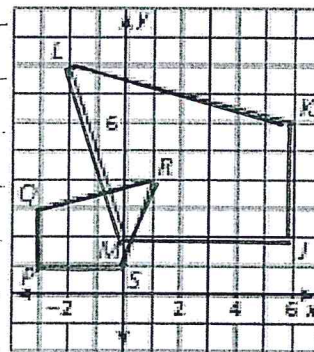
Find the values of X and Y

7.



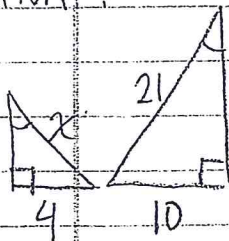
Find the scale factor K . Is this an enlargement or reduction?

8.



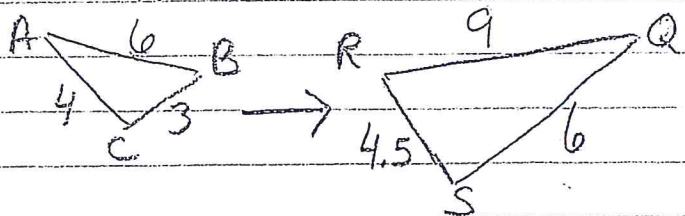
Describe a similarity transformation that maps JKLM onto PQRS

9.



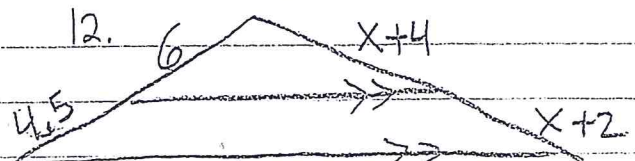
Find the value of x

10. Find the scale factor $\triangle ABC \sim \triangle QRS$



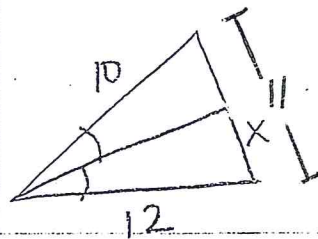
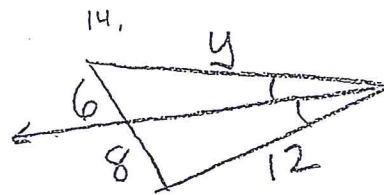
11. Using the $\triangle$'s in problem 10, $m\angle Q = 25^\circ$, $m\angle C = 100^\circ$. Find $m\angle B$.

12.

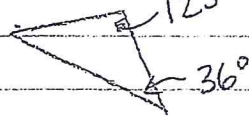
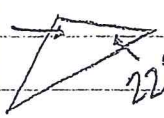


Find the value of X

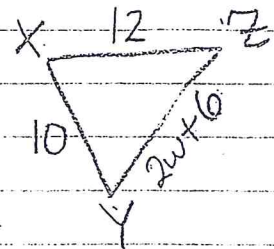
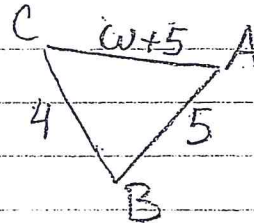
13.

Find the value of x Find the value of y 15. Are these Δ s $\sim$?

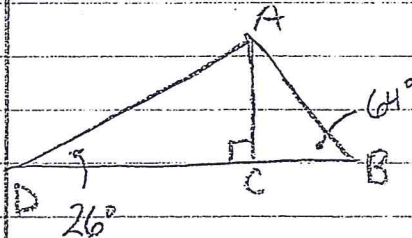
123°



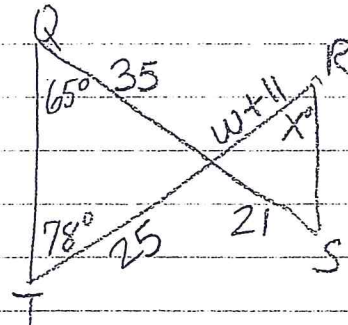
Justify your answer.

16. $\Delta XYZ \sim \Delta ABC$ Find the value of w 

17. Determine whether

 $\Delta ABC \sim \Delta DAC$ 

18.



$\overline{QT} \parallel \overline{RS}$
Find the
values of
 x and w

19. Factor the polynomials

a) $x^2 - 2x - 15$

b) $x^2 + 2x - 24$

c) $x^2 - 7x + 12$

20. Solve the quadratic equations

a) $x^2 - 5x - 6 = 0$

b) $x^2 + 2x - 15 = 0$

c) $x^2 - 5x = 0$