

# Similarity Ch 8 Review for Test 8

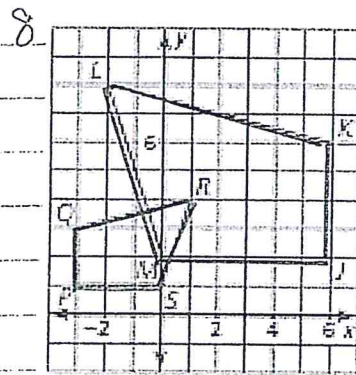
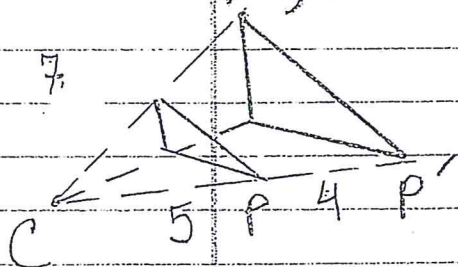
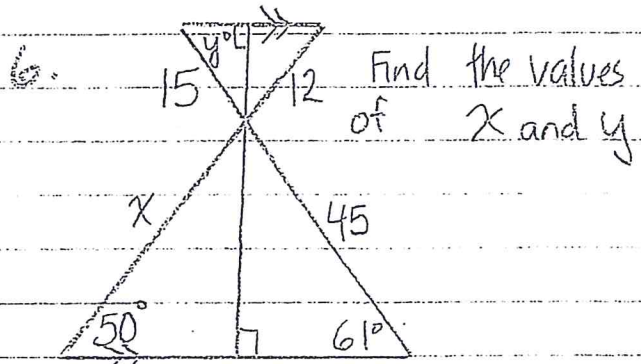
1. GRAPH  $\triangle ABC$  and its image after a dilation of 75%  
 $A(-8, 2)$   $B(0, 4)$   $C(-2, -4)$

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.

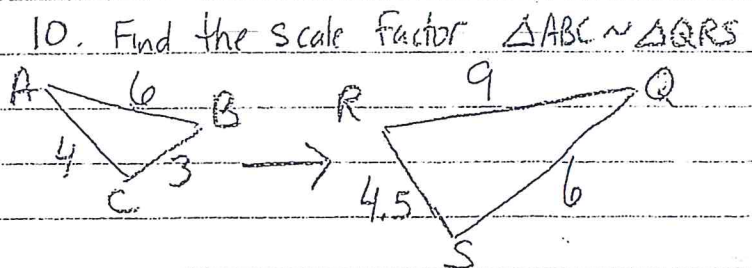
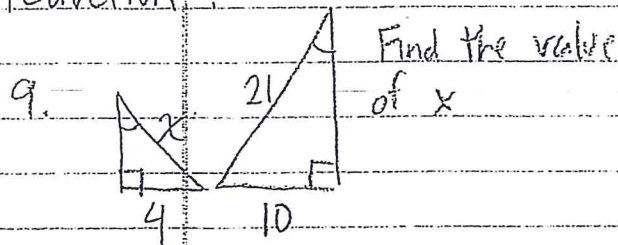
4. The ratio of two corresponding sides in two similar pentagons is  $\frac{5}{2}$ . The smaller area is  $40 \text{ in}^2$ . Find the other area.

5. A magnifying glass creates an image 10x larger than the actual size. Through the glass you see an ant 78 mm long. What is the actual length?

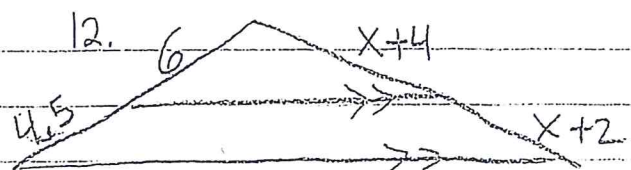


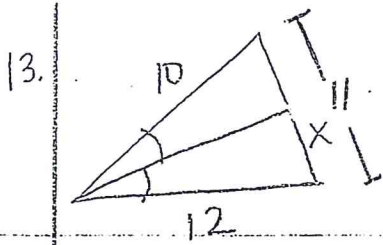
Describe a similarity transformation that maps JKLM onto PQRS

- Find the scale factor  $k$   
 Is this an enlargement or reduction?

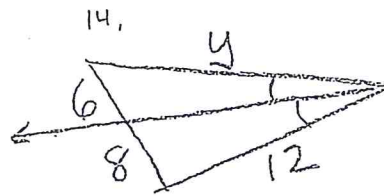


11. Using the  $\triangle$ 's in problem 10,  
 $m\angle Q = 25^\circ$ ,  $m\angle C = 100^\circ$   
 Find  $m\angle B$ .





Find the value of  $x$



Find the value of  $y$

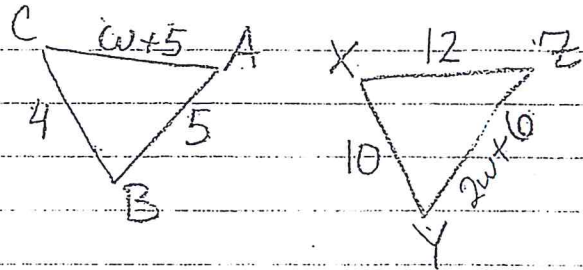
15. Are these  $\Delta$ s  $\sim$ ?



Justify your answer.

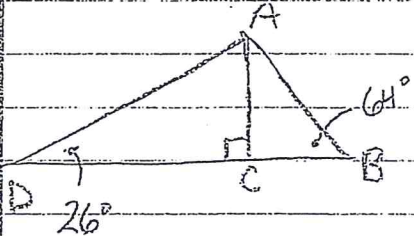
16.  $\Delta XYZ \sim \Delta ABC$

Find the value of  $w$

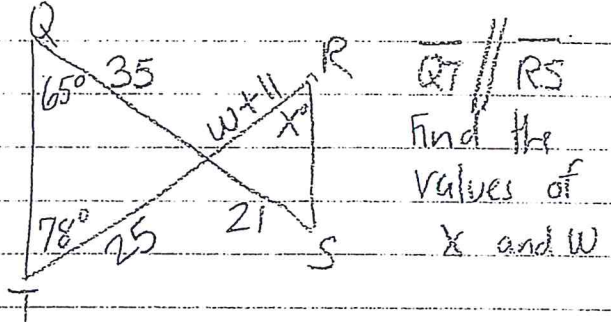


17. Determine whether

$\Delta ABC \sim \Delta DAC$



18.



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)  $x^2 - 5x = 0$