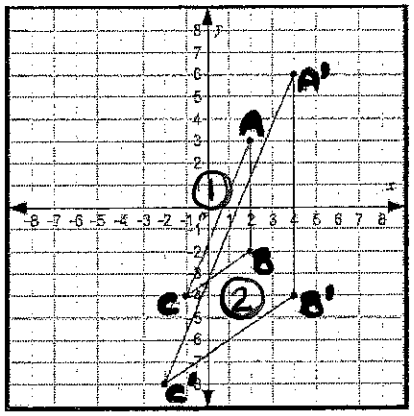
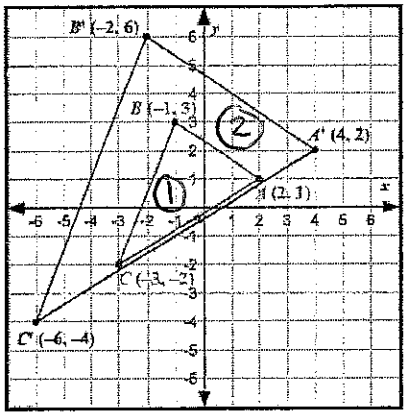
Quiz Review – Transformations Name: Key

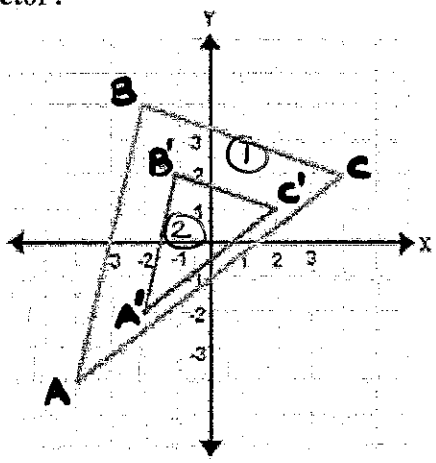
What type of dilation takes place in the following and what is the scale factor?

1. 

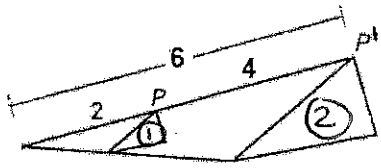
Type of dilation= enlargement

2. 

Type of dilation= enlargement

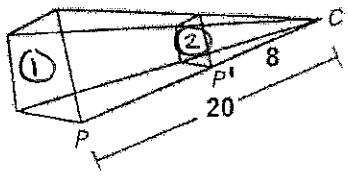
3. 

Type of dilation= reduction

4. 

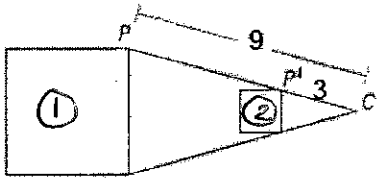
Type of dilation= enlargement

$k = \frac{P'}{P} = \frac{6}{2} = 3$

5. 

Type of dilation= reduction

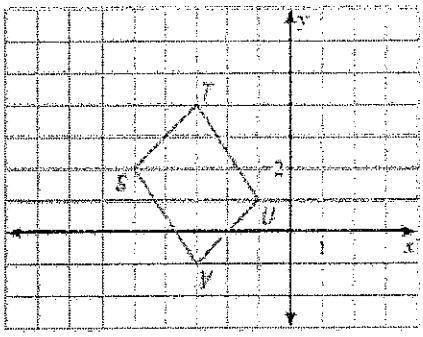
$k = \frac{P'}{P} = \frac{8}{20} = \frac{2}{5}$

6. 

Type of dilation= reduction

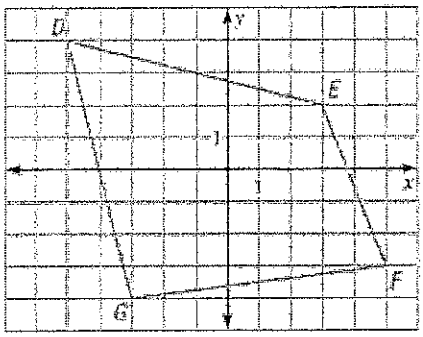
$k = \frac{P'}{P} = \frac{3}{9} = \frac{1}{3}$

Given the scale factor, what would be the new coordinates of the given figure?

7. 

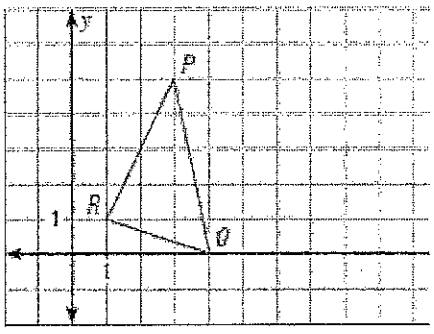
$k = \frac{1}{2}$

S (-5, 2) S' (-2.5, 1)
T (-3, 4) T' (-1.5, 2)
U (-1, 1) U' (-.5, .5)
V (-3, -1) V' (-1.5, -.5)

8. 

$k = 2$

D (-5, 4) D' (-10, 8)
E (3, 2) E' (6, 4)
F (5, -3) F' (10, -6)
G (-3, -4) G' (-6, -8)

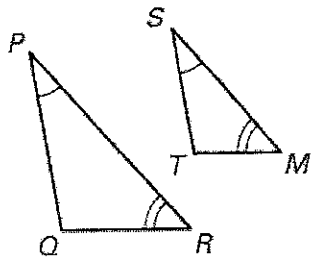
9. 

$k = 3$

P (3, 5) P' (9, 15)
Q (4, 0) Q' (12, 0)
R (1, 1) R' (3, 3)

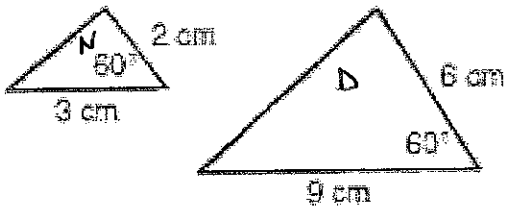
Are the following triangles similar? Explain why or why not. What theorem proves it?

10.



similar using AA similarity Postulate

11.

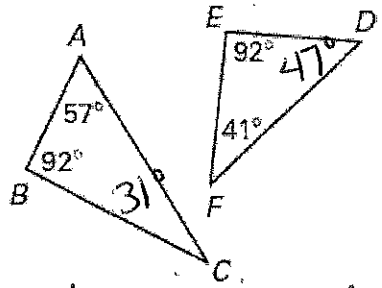


$\frac{2}{6}$ $\frac{3}{9}$

(.3) (.3)

similar using SAS Similarity theorem

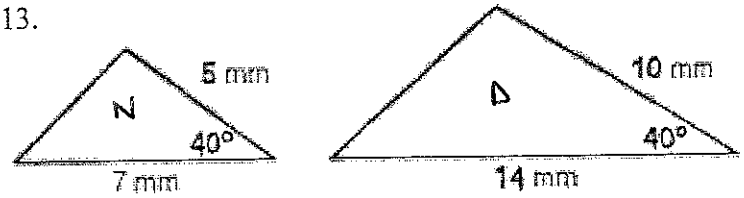
12.



Find missing Angles first.

NOT similar because at least 2 angles are not congruent.

13.

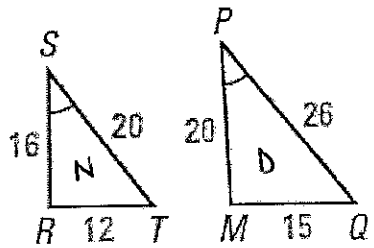


$\frac{5}{10}$ $\frac{7}{14}$

(.5) (.5)

similar using SAS similarity theorem

14.

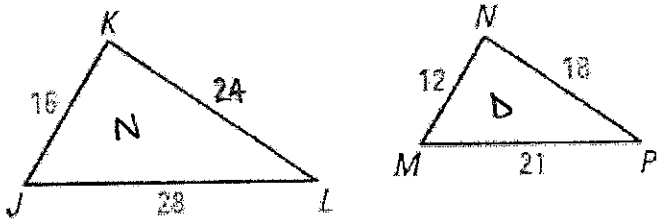


$\frac{12}{15}$ $\frac{16}{20}$ $\frac{20}{26}$

(.8) (.8) (.769)

NOT similar because all 3 coresponding sides are not proportional

15.

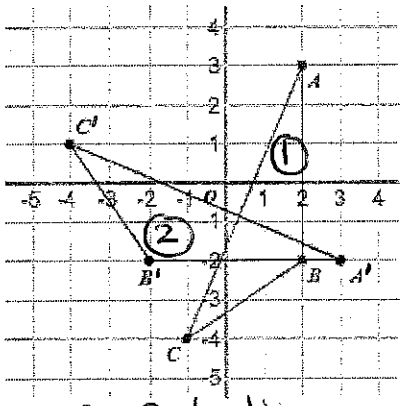


$\frac{16}{12}$ $\frac{24}{18}$ $\frac{28}{21}$

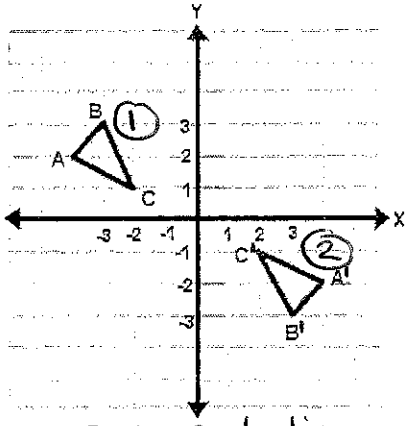
(1.3) (1.3) (1.3)

similar using SSS Similarity theorem

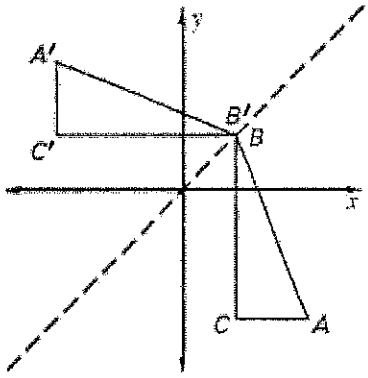
What transformation takes place? Be specific. (ex. translates left 2 & up 1 or reflects over x-axis)

16. 

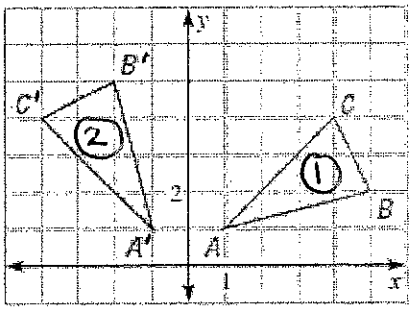
90° Rotation clockwise

17. 

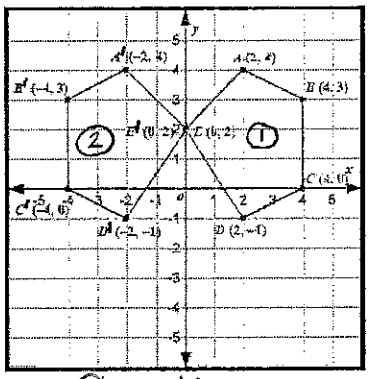
180° Rotation

18. 

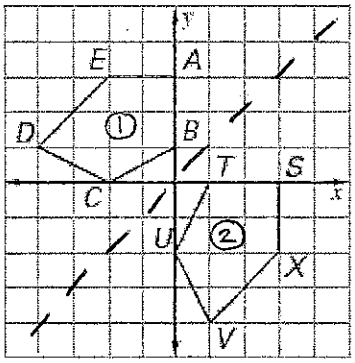
Reflection over y=x

19. 

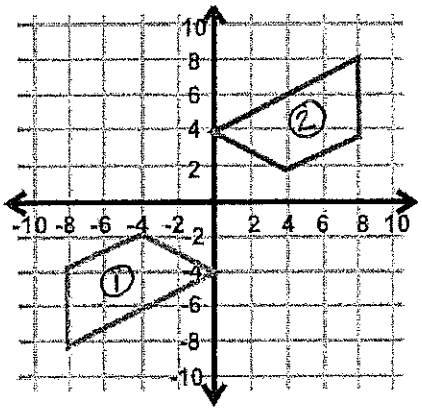
90° Rotation counterclockwise

20. 

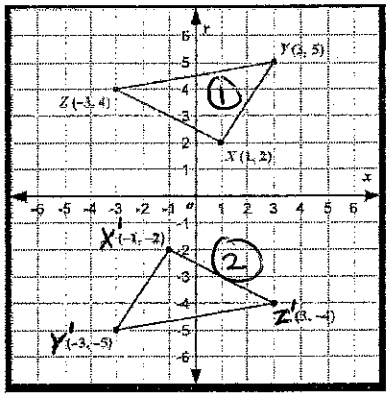
Reflection over y-axis.

21. 

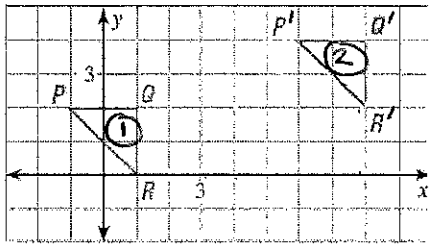
Reflection over y=x

22. 

180° Rotation

23. 

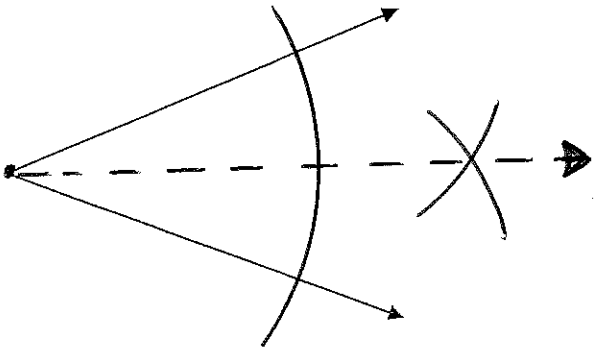
180° Rotation

24. 

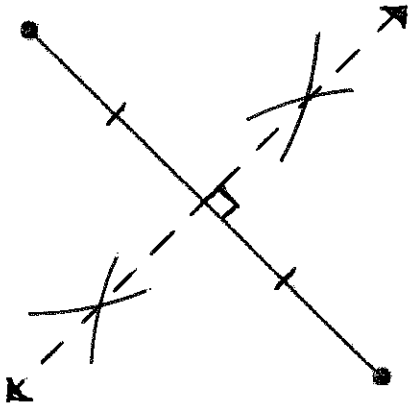
Translation Right 7 up 2

Construct the following and be familiar with the steps of each:

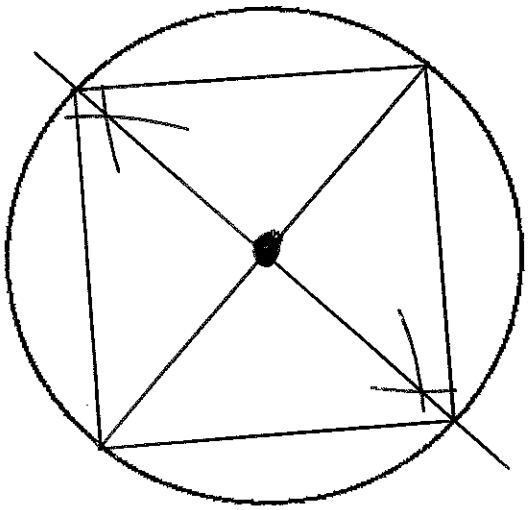
Angle Bisector



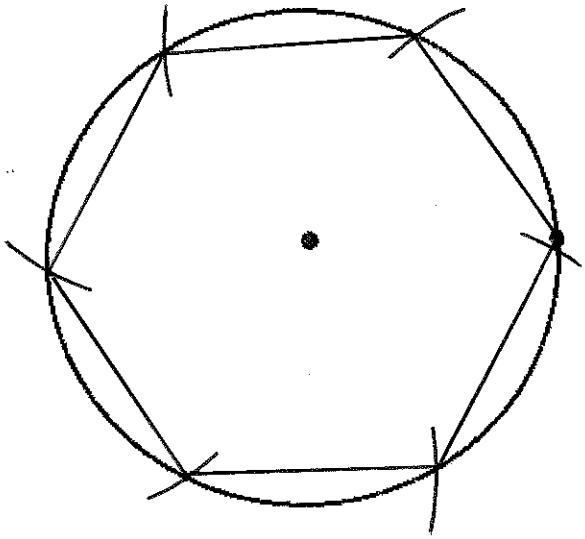
Perpendicular Bisector



Inscribed Square



Inscribed Hexagon



Inscribed Equilateral Triangle