

Name: key

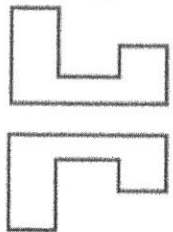
Date:

Period:

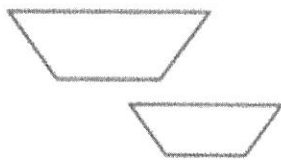
HW #4-8: Test Review

Tell whether each transformation appears to be just a reflection, just a translation, just a rotation, or none of these.

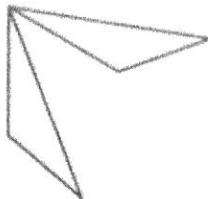
1. reflection



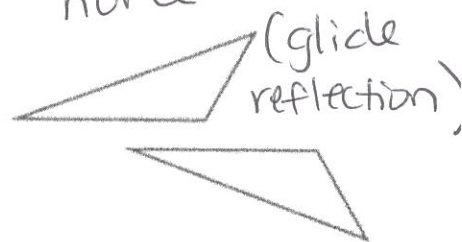
2. none
(dilation)



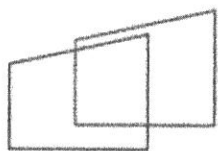
3. rotation



4. none
(glide reflection)



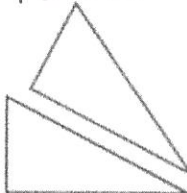
5. translation



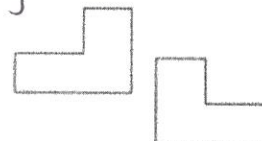
6. reflection
or rotation



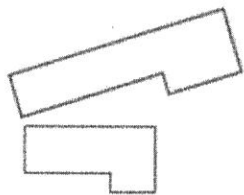
7. rotation



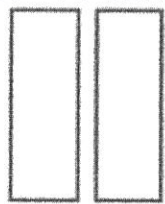
8. none
(glide reflection)



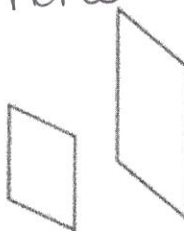
9. none



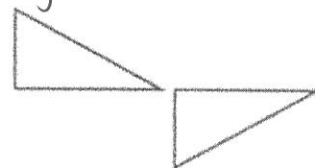
10. reflection
or rotation
or translation



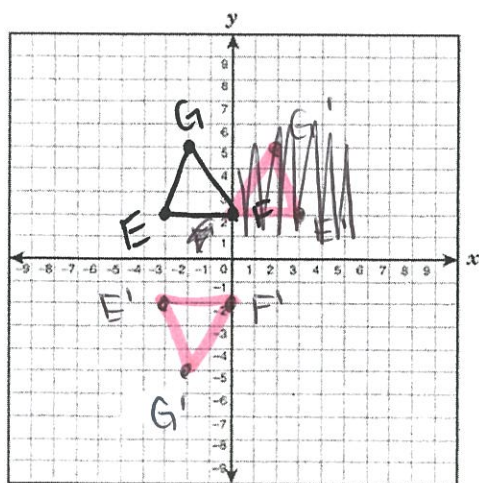
11. none



12. none
(glide reflection)



13. Reflect the figure in the x-axis.

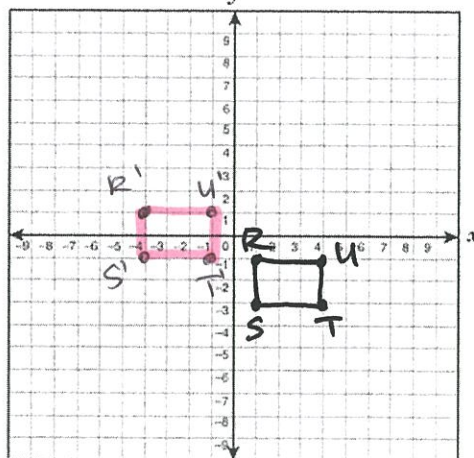


$E'(-3, -2)$

$F'(0, -2)$

$G'(-2, -5)$

14. Translate the figure using the rule $(x, y) \rightarrow (x - 5, y + 2)$



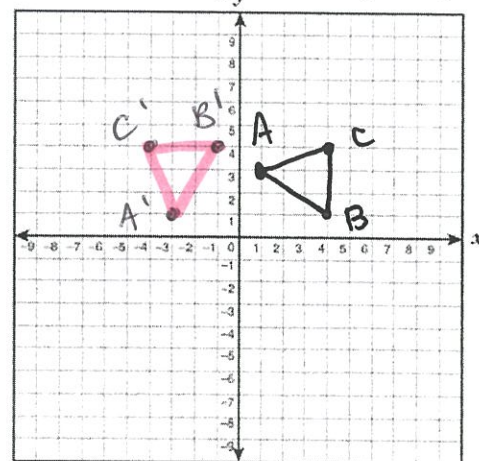
$R'(-4, 2)$

$S'(-4, 0)$

$T'(-1, 0)$

$U'(-1, 2)$

15. Rotate the figure 90° about the origin. $(x, y) \rightarrow (-y, x)$

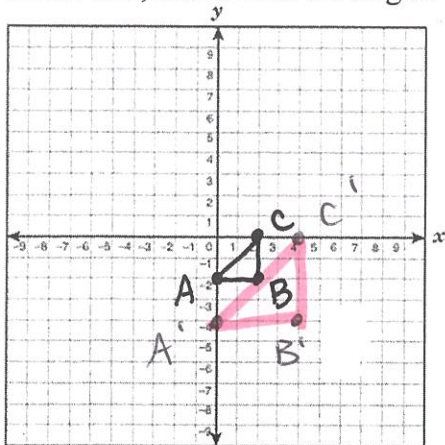


$A'(-2, 1)$

$B'(-1, 4)$

$C'(-4, 4)$

16. Dilate the figure using scale factor of 2, centered at the origin.

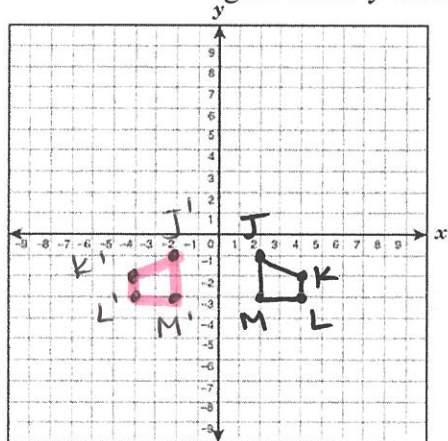


A' (0 , -4)

B' (4 , -4)

C' (4 , 0)

17. Reflect the figure in the y-axis



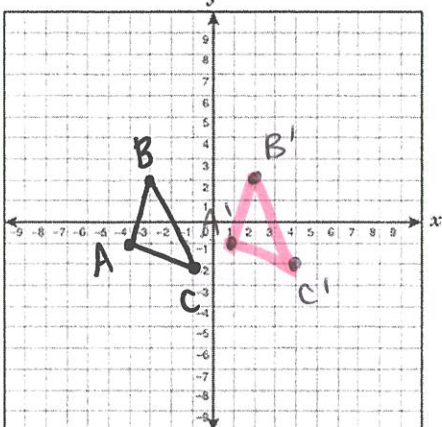
J' (-2 , -1)

K' (-4 , -2)

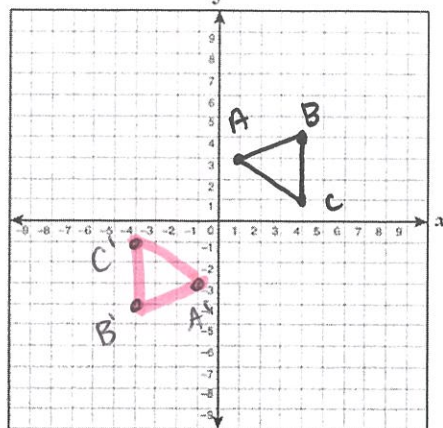
L' (-4 , -3)

M' (-2 , -3)

18. Translate the figure using the rule $(x, y) \rightarrow (x + 5, y)$



19. Rotate the figure 180° about the origin. $(x, y) \rightarrow (-x, -y)$

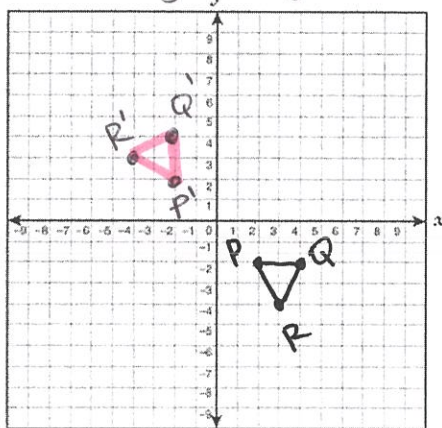


A' (-1 , -3)

B' (-4 , -4)

C' (-4 , -1)

20. Reflect the figure in the line $y = x$ $(x, y) \rightarrow (y, x)$



P' (-2 , 2)

Q' (-2 , 4)

R' (-4 , 3)

A' (1 , -1)

B' (2 , 2)

C' (4 , -2)

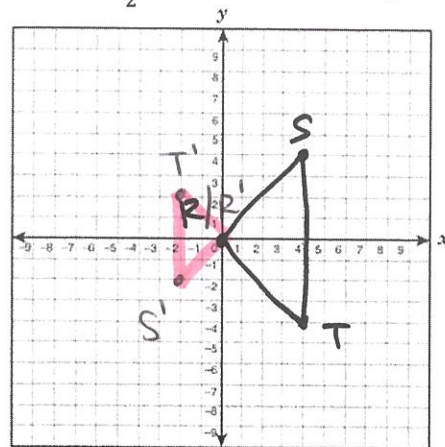
M' (2 , -2)

N' (2 , -5)

P' (-2 , 0)

Q' (-2 , -3)

21. Dilate the figure using scale factor $-\frac{1}{2}$, centered at the origin.

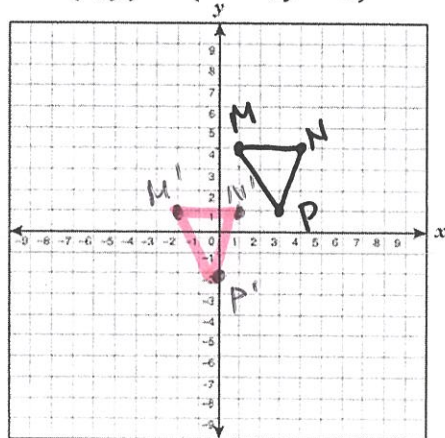


R' (0 , 0)

S' (-2 , -2)

T' (-2 , 2)

22. Translate the figure using the rule $(x, y) \rightarrow (x - 3, y - 3)$

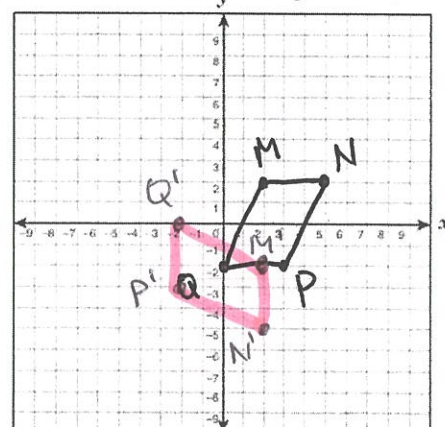


M' (-2 , 1)

N' (1 , 1)

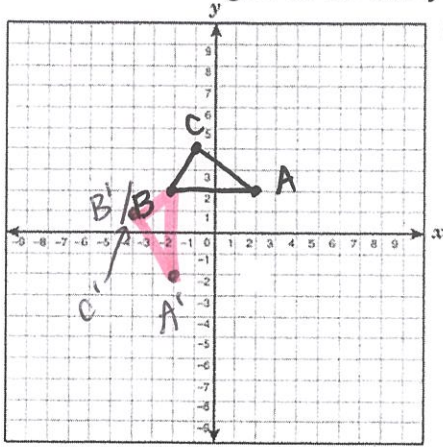
P' (0 , -2)

23. Rotate the figure using 270° about the origin. $(x, y) \rightarrow (y, -x)$



24. Reflect the figure in the line $y = -x$

$$(x, y) \rightarrow (-y, -x)$$



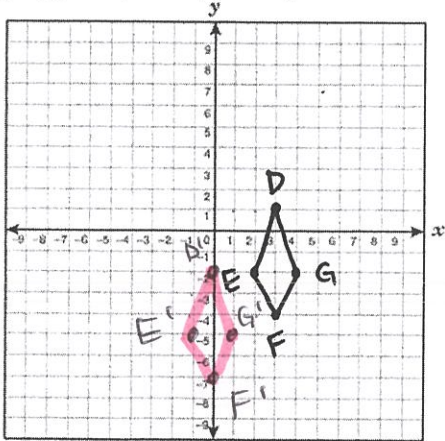
A' (-2 , -2)

B' (-2 , 2)

C' (-4 , 1)

25. Translate the figure using the rule

$$(x, y) \rightarrow (x - 3, y - 3)$$



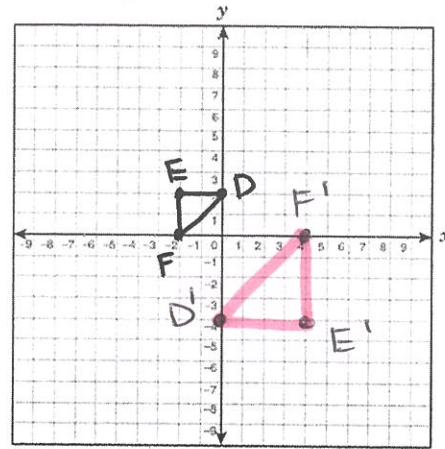
D' (0 , -2)

E' (-1 , -5)

F' (0 , -7)

G' (1 , -5)

26. Dilate the figure using scale factor of -2, centered at the origin.



D' (0 , -4)

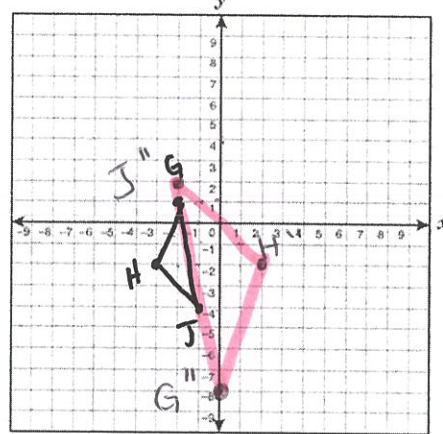
E' (4 , -4)

F' (4 , 0)

27. Perform the similarity transformation on the figure.

Translation: $(x, y) \rightarrow (x + 2, y + 3)$

Dilation: $(x, y) \rightarrow (-2x, -2y)$



G' (0 , -8)

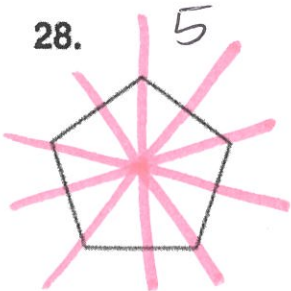
H' (2 , -2)

I' (-2 , 2)

For #28-32, draw all lines of symmetry on each figure.

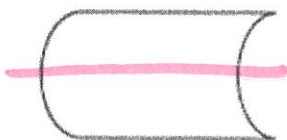
28.

5



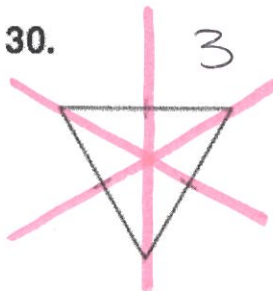
29.

1



30.

3



31.

0



32.

0



33. For each figure in #28-32, does the figure have rotational symmetry? If so, what is the angle of rotational symmetry? List on back of this page.

28. yes; 72°

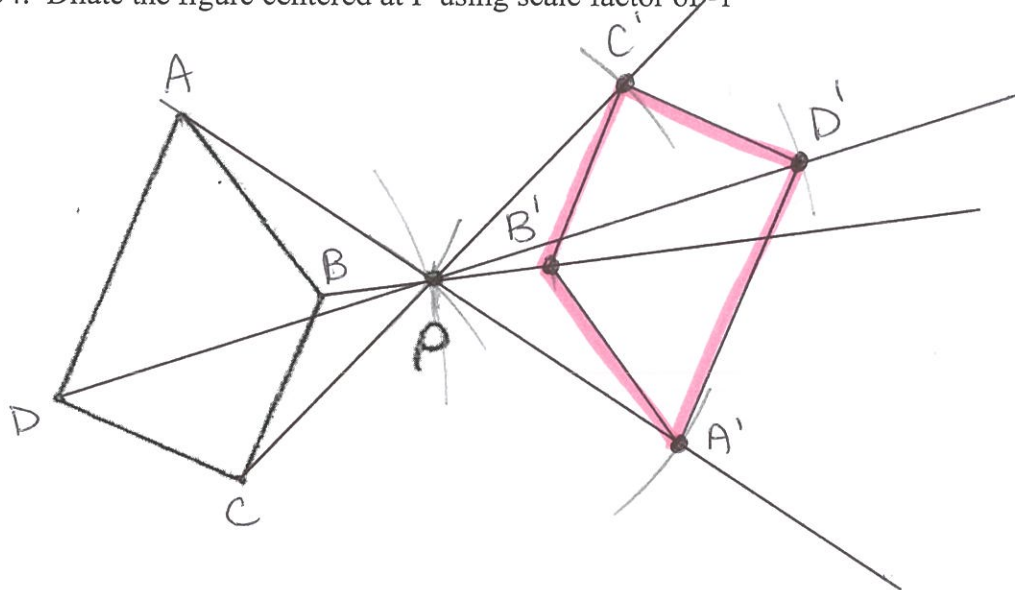
29. NO

30. yes; 120°

31. NO

32. yes; 180°

34. Dilate the figure centered at P using scale factor of -1



35. Dilate the figure centered at P using scale factor 2

