

Directions: Select the best answer.

1. A point P has coordinates $(-8, -2)$. What are its new coordinates after reflecting point P across the x -axis?

- [A] $(-8, 2)$ [B] $(8, -2)$ [C] $(8, 2)$ [D] $(-2, -8)$

2. What is the reflection image of $(5, -3)$ across line $y = x$?

- [A] $(-5, 3)$ [B] $(5, 3)$ [C] $(-3, 5)$ [D] $(-3, -5)$

3. Translate the following points by the translation rule $(x, y) \rightarrow (x + 1, y - 4)$

$S(-5, 2) \rightarrow S'(\quad, \quad)$

$Y(-4, 5) \rightarrow Y'(\quad, \quad)$

$R(-1, 1) \rightarrow R'(\quad, \quad)$

4. A point Q with coordinates $(-8, -6)$ is reflected across the y -axis. What are its new coordinates?

- [A] $(-8, 6)$ [B] $(8, -6)$ [C] $(-8, 6)$ [D] $(-6, -8)$

5. Write the translation of point $P(2, -9)$ to point $P'(0, -12)$.

[A] $(x, y) \rightarrow (x - 3, y - 2)$

[B] $(x, y) \rightarrow (x + 3, y + 2)$

[C] $(x, y) \rightarrow (x + 2, y + 3)$

[D] $(x, y) \rightarrow (x - 2, y - 3)$

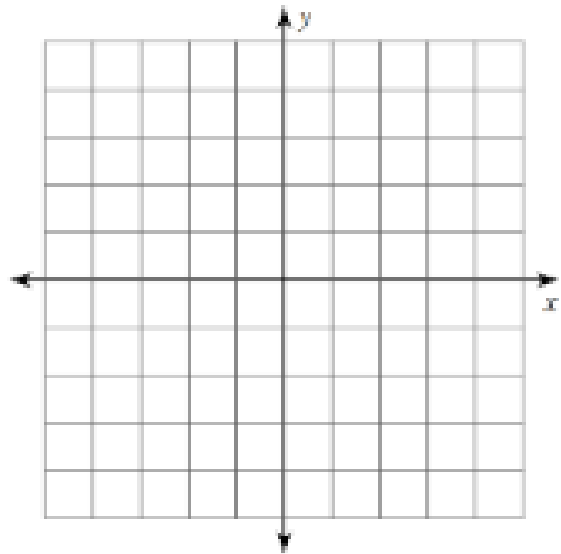
6. Translation: $(x, y) \rightarrow (x - 2, y - 6)$

$W(3, 2) \rightarrow W'(\quad, \quad)$

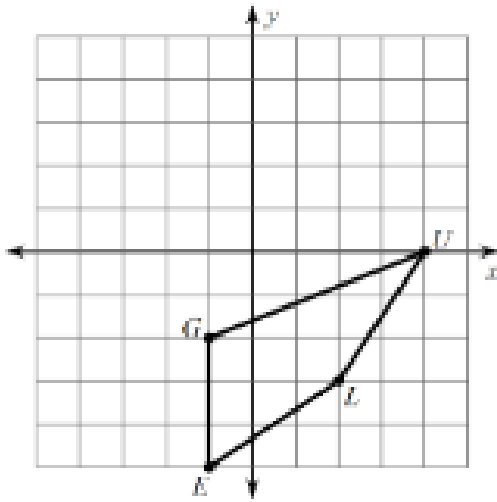
$C(2, 4) \rightarrow C'(\quad, \quad)$

$T(3, 5) \rightarrow T'(\quad, \quad)$

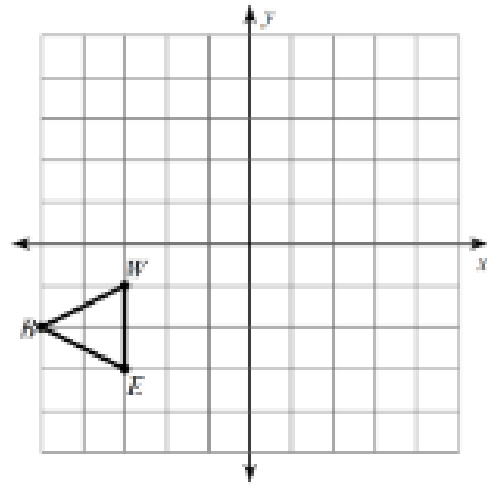
$Z(5, 2) \rightarrow Z'(\quad, \quad)$



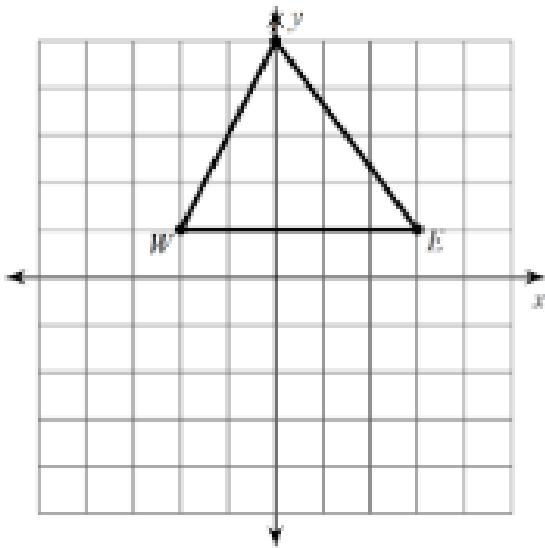
3. Reflection over $y = x$



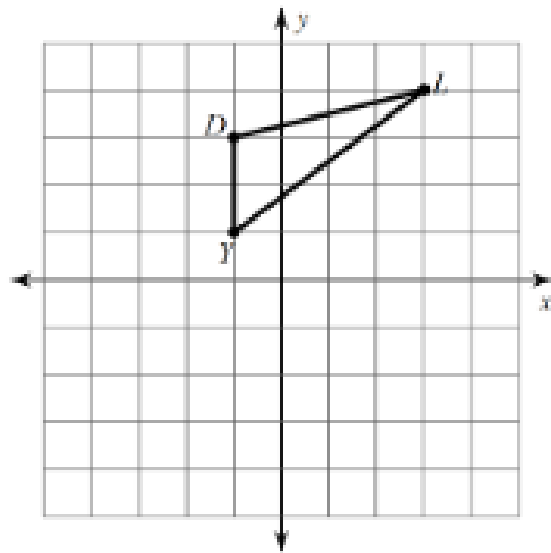
4. Reflection over $y = -3$



5. Rotate the figure -90



6. Rotate the figure -270



7. Given Point $M (-3, 1)$ and $S (5, -2)$

1. Translate: $(x, y) \rightarrow (x - 3, y + 2)$

M' (,) and S' (,)

then

2. Reflect across the y -axis:

M'' (,) and S'' (,)

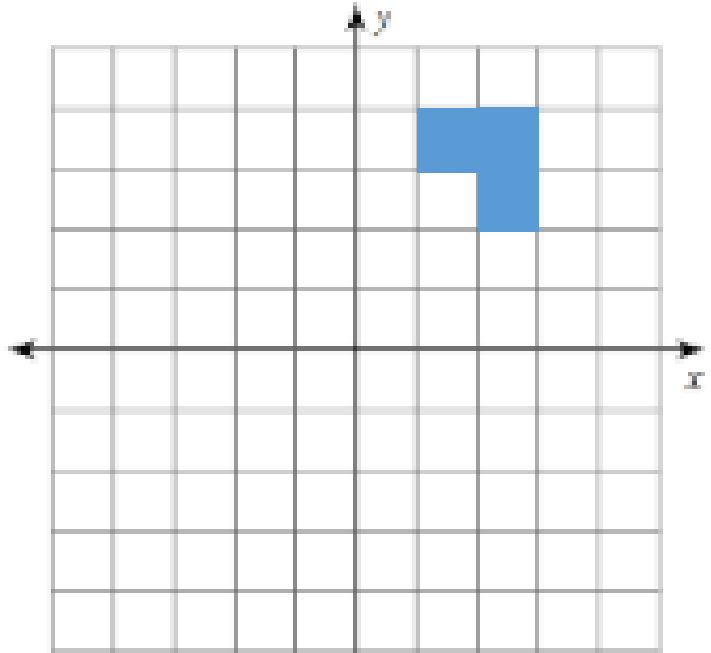
8. Given Point $K (0, -4)$, $P (-6, -3)$, and $R (1, 2)$

1. Reflect across the y -axis: $K' (\quad , \quad)$ $P' (\quad , \quad)$ $R' (\quad , \quad)$

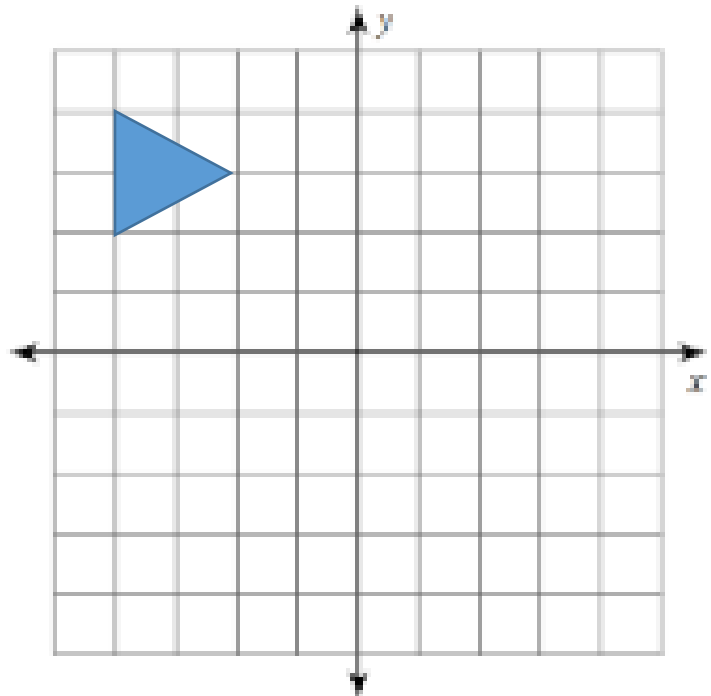
then

2. Rotate -270° : $K'' (\quad , \quad)$ $P'' (\quad , \quad)$ $R'' (\quad , \quad)$

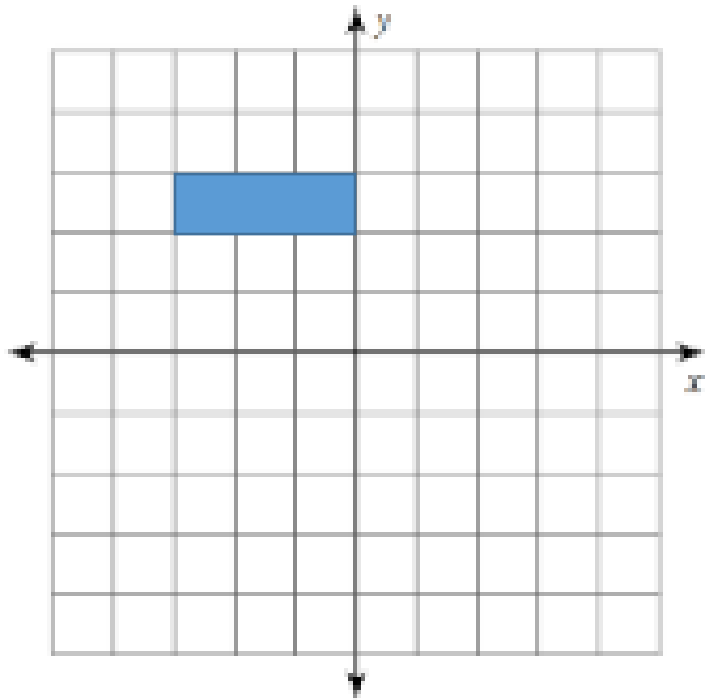
9. Rotate the pre-image 90° around the origin, then reflect over $y = x$. Draw and clearly label the prime and double-prime images.



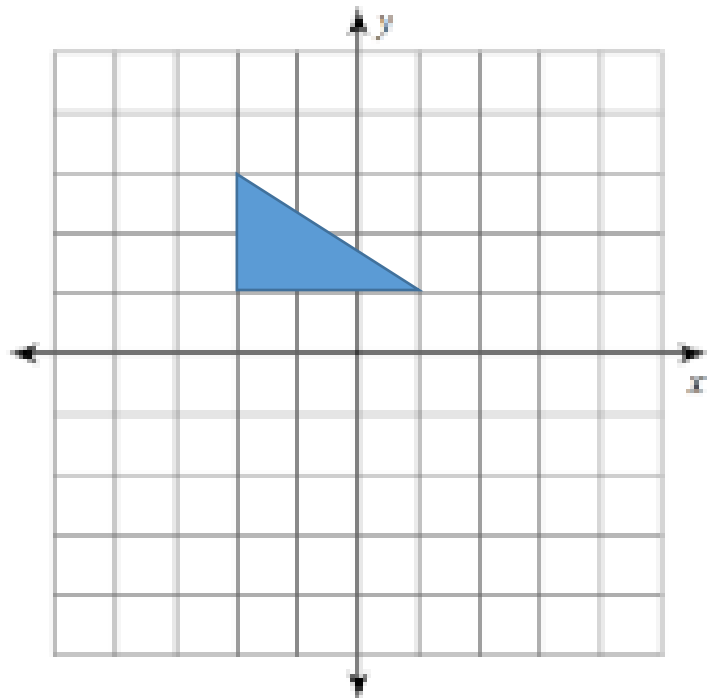
10. Reflect the pre-image across the x -axis, then reflect over y -axis. Draw and clearly label the prime and double-prime images.



11. Rotate the pre-image -270° around the origin, then rotate 180° . Draw and clearly label the prime and double-prime images.

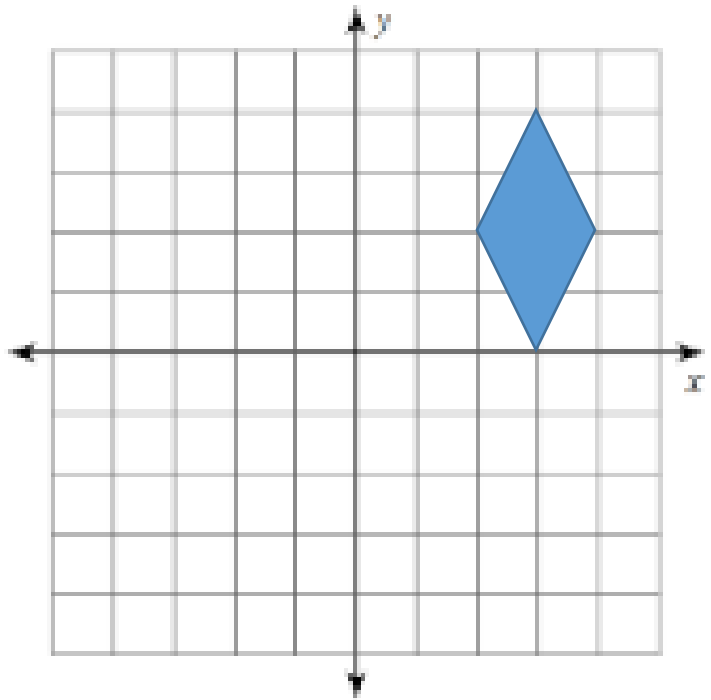


12. Translate the pre-image by the rule $(x, y) \rightarrow (x - 3, y + 2)$, then translate by the rule $(x, y) \rightarrow (x - 7, y - 5)$. Draw and clearly label the prime and double-prime images.

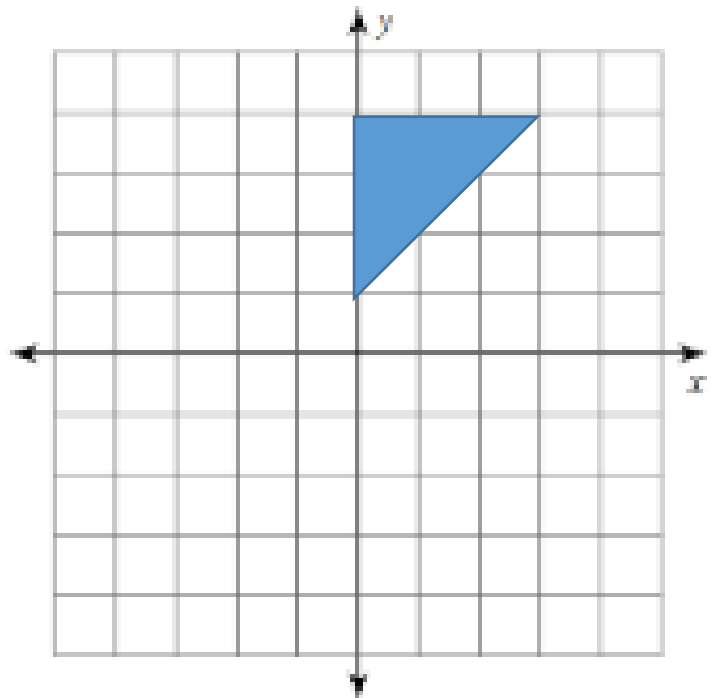


13. Rotate the pre-image 180° around the origin, then translate by the rule $(x, y) \rightarrow (x + 6, y - 2)$.

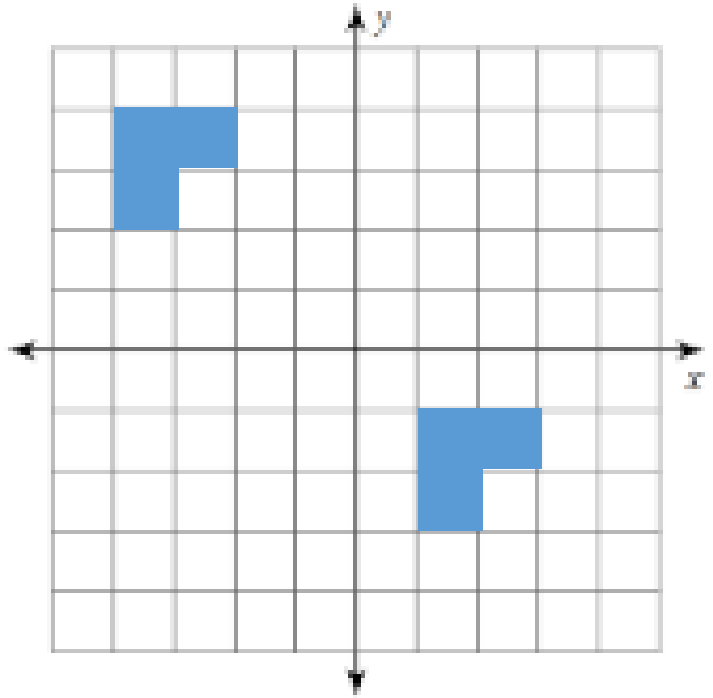
Draw and clearly label the prime and double-prime images.



14. Reflect the pre-image across $y = -x$, then across the x -axis. Draw and clearly label the prime and double-prime images.



15. Determine the rule.



16. Reflect the pre-image across $y = -x$, then across the x -axis. Draw and

