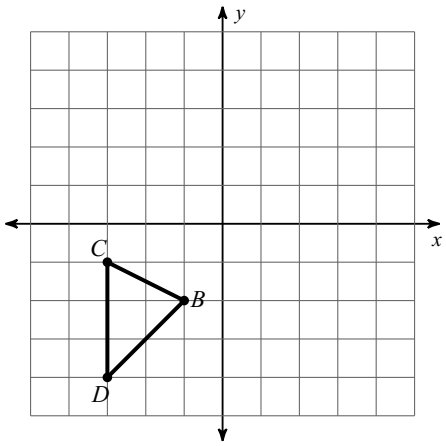
Geometry Name_____ ID: 1

Unit 1 Quiz 2 Study Guide

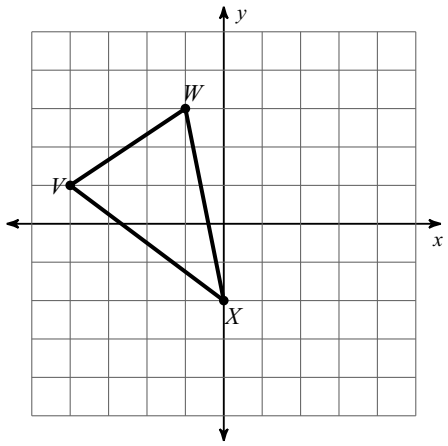
Date_____ Period____

Graph the image of the figure using the transformation given.

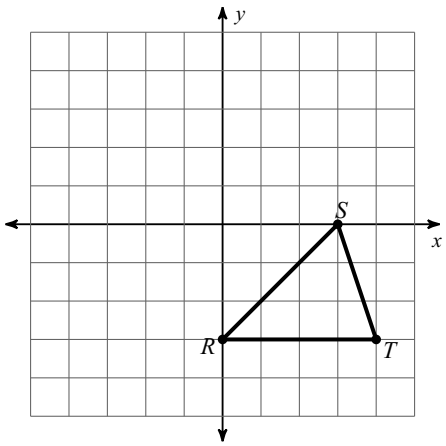
1) translation: 1 unit left



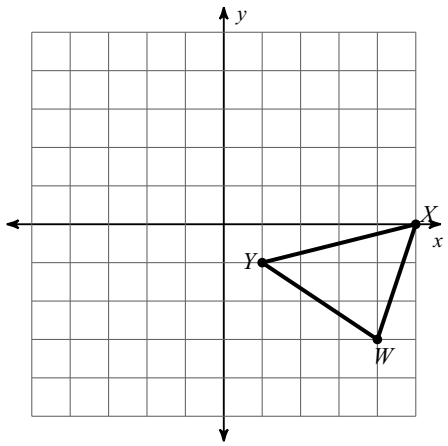
2) translation: 2 units right and 3 units down



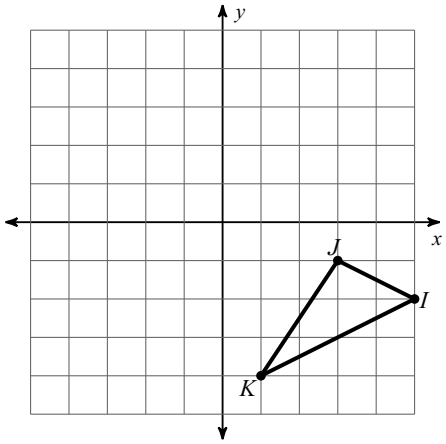
3) translation: 4 units left and 1 unit up



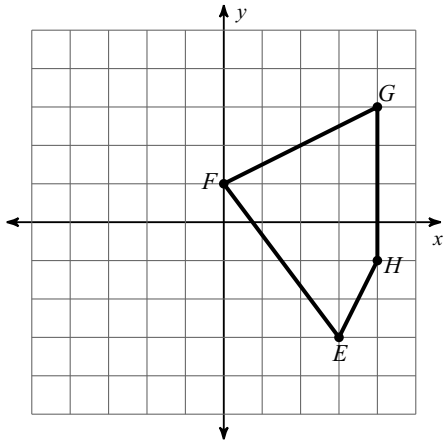
4) translation: 3 units left and 5 units up



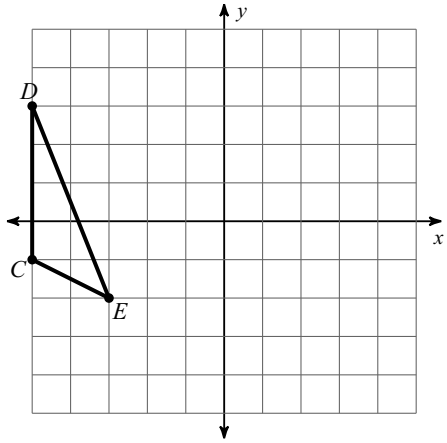
5) translation: $(x, y) \rightarrow (x, y + 1)$



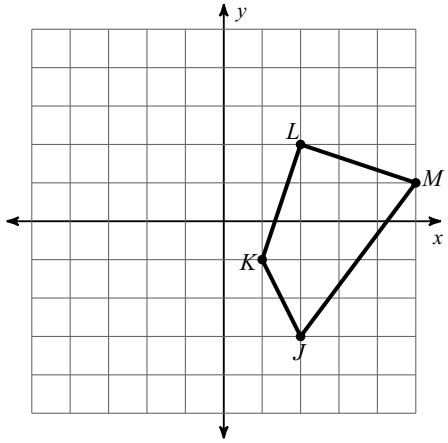
6) translation: $(x, y) \rightarrow (x + 1, y - 1)$



7) translation: $(x, y) \rightarrow (x, y - 1)$

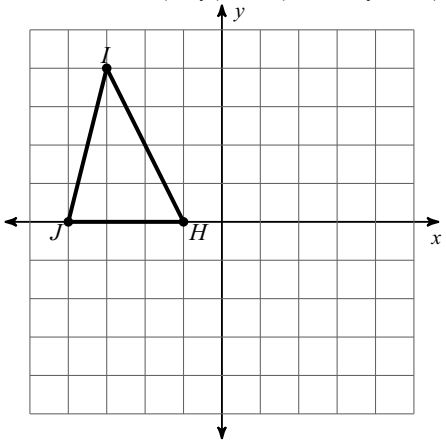


8) translation: $(x, y) \rightarrow (x - 2, y - 2)$

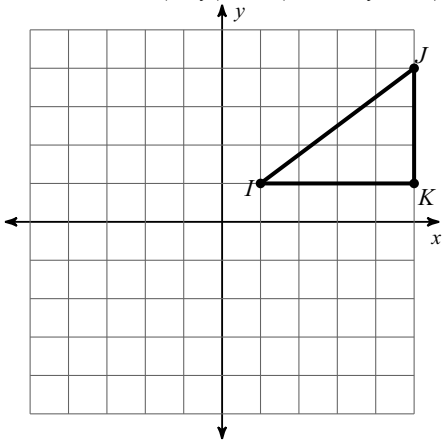


Find the coordinates of the vertices of each figure after the given transformation.

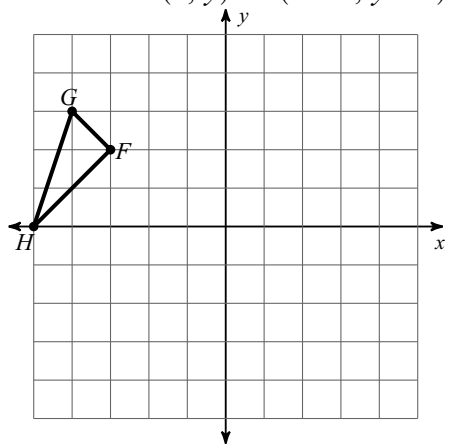
9) translation: $(x, y) \rightarrow (x - 1, y - 5)$



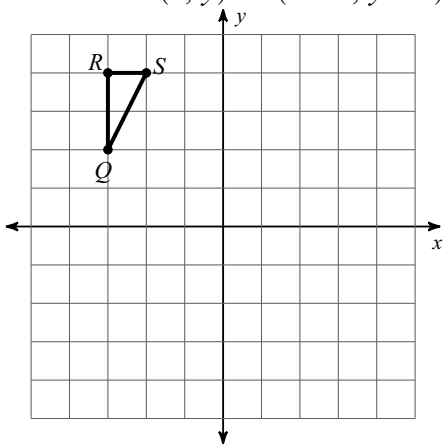
10) translation: $(x, y) \rightarrow (x - 6, y - 1)$



11) translation: $(x, y) \rightarrow (x + 4, y - 1)$

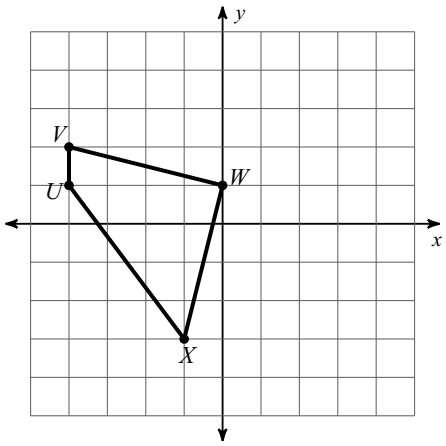


12) translation: $(x, y) \rightarrow (x + 3, y - 4)$

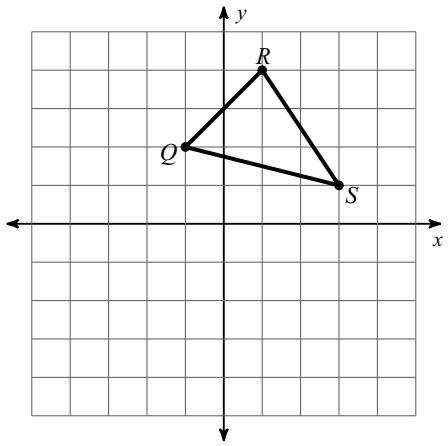


Graph the image of the figure using the transformation given.

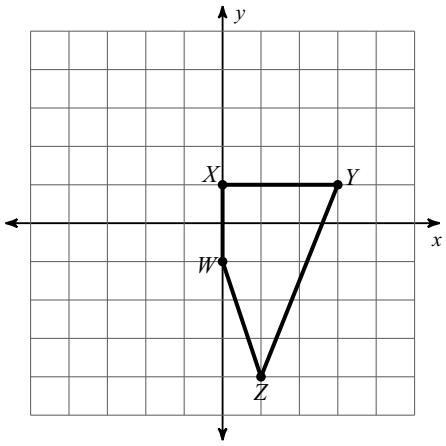
13) reflection across $y = -1$



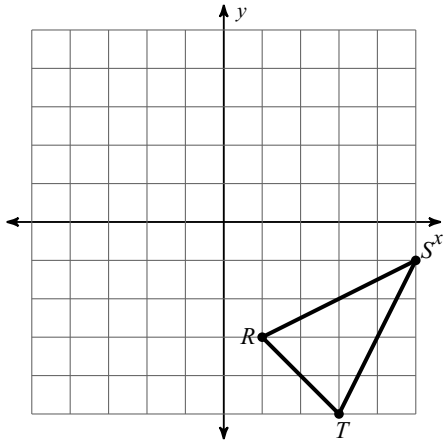
14) reflection across $y = x$



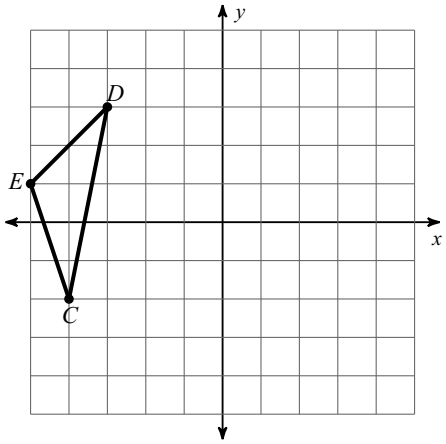
15) reflection across $x = 2$



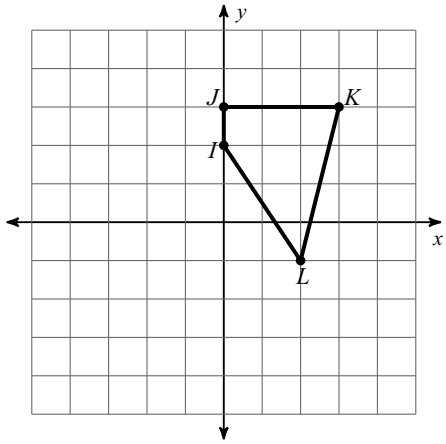
16) reflection across the x-axis



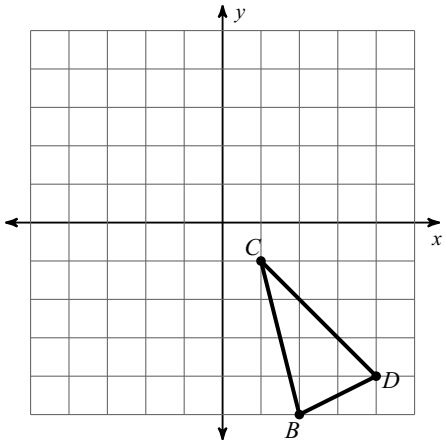
17) reflection across $x = -3$



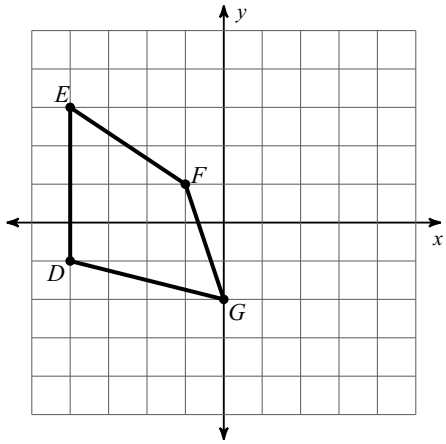
18) reflection across $y = -x$



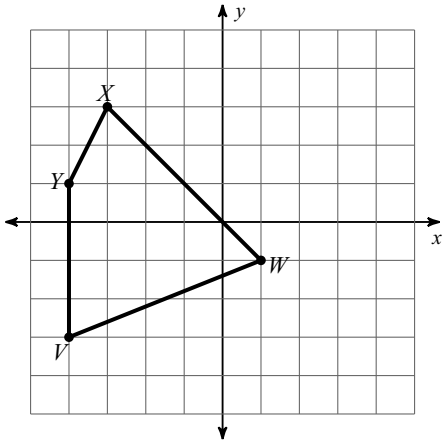
19) reflection across $x = 1$



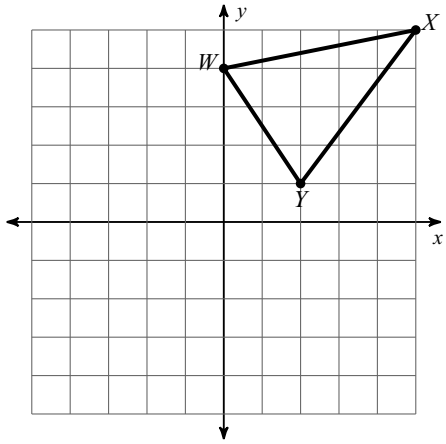
20) reflection across $y = -x$



21) reflection across $y = x$



22) reflection across $y = 2$



Write a rule to describe each transformation.

23) $C(-5, 0)$ to $C'(0, 5)$

A) reflection across $y = -x$
B) translation: $(x, y) \rightarrow (x + 2, y - 3)$
C) reflection across $y = 1$
D) reflection across $x = -1$

24) $L(-1, 2)$ to $L'(5, -5)$

A) translation: $(x, y) \rightarrow (x + 4, y - 6)$
B) reflection across $y = x$
C) translation: $(x, y) \rightarrow (x + 6, y - 7)$
D) reflection across $y = -x$

25) $E(1, -5)$ to $E'(-4, -1)$

A) translation: $(x, y) \rightarrow (x - 5, y + 4)$
B) translation: $(x, y) \rightarrow (x + 3, y + 6)$
C) reflection across $y = -1$
D) translation: $(x, y) \rightarrow (x - 3, y + 6)$

26) $B(-3, 2), C(-1, 3), D(-2, -1)$
to
$B'(-4, 1), C'(-2, 2), D'(-3, -2)$

A) reflection across the x-axis
B) reflection across $y = x$
C) reflection across $x = 1$
D) translation: $(x, y) \rightarrow (x - 1, y - 1)$

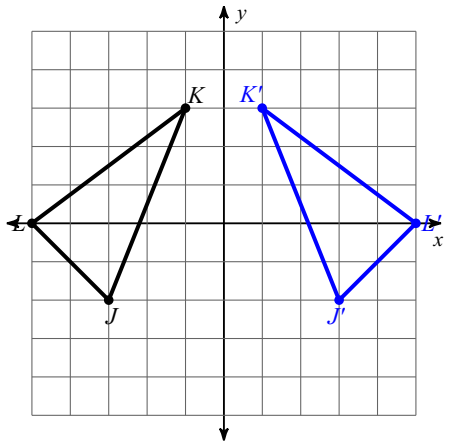
27) $E(1, 4), F(1, 5), G(4, 4)$
to
$E'(-5, -1), F'(-5, 0), G'(-2, -1)$

A) translation: $(x, y) \rightarrow (x - 4, y - 5)$
B) translation: $(x, y) \rightarrow (x - 6, y - 5)$
C) reflection across $x = 1$
D) reflection across $y = -x$

28) $M(3, 0), L(2, 5), K(5, 3)$
to
$M'(1, -1), L'(0, 4), K'(3, 2)$

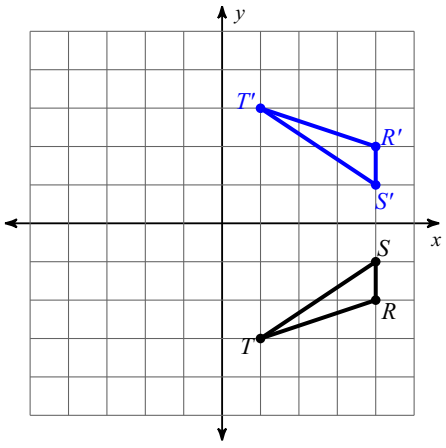
A) translation: $(x, y) \rightarrow (x - 2, y - 1)$
B) reflection across $x = 2$
C) translation: $(x, y) \rightarrow (x - 5, y - 3)$
D) reflection across $x = 1$

29)



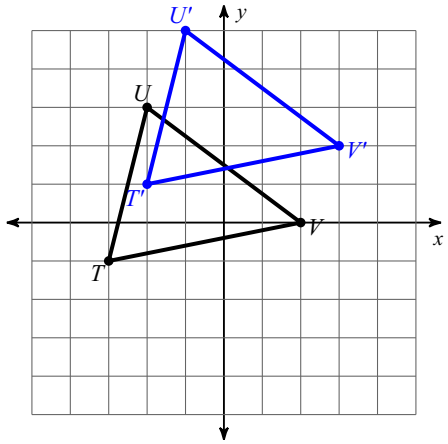
A) translation: $(x, y) \rightarrow (x + 5, y - 1)$
B) reflection across $x = -3$
C) reflection across $x = -2$
D) reflection across the y-axis

30)



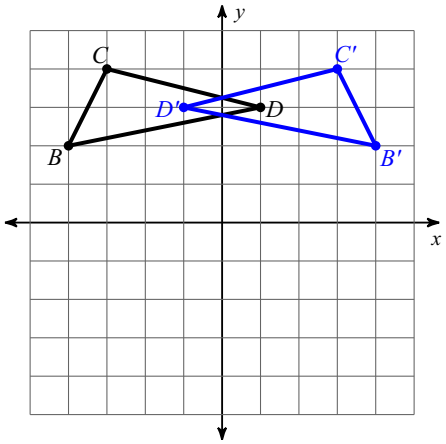
A) reflection across $x = 3$
B) reflection across the x-axis
C) reflection across $y = -x$
D) reflection across $y = -2$

31)



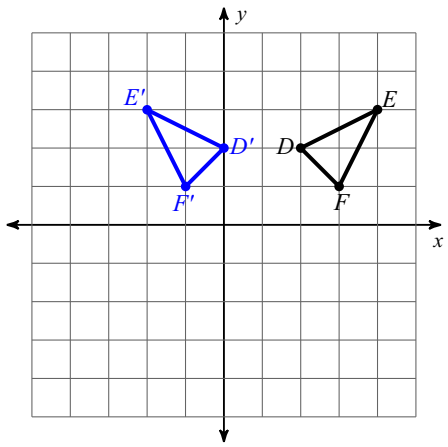
A) translation: $(x, y) \rightarrow (x + 1, y + 2)$
B) translation: $(x, y) \rightarrow (x, y + 1)$
C) reflection across the y-axis
D) translation: $(x, y) \rightarrow (x, y - 2)$

32)



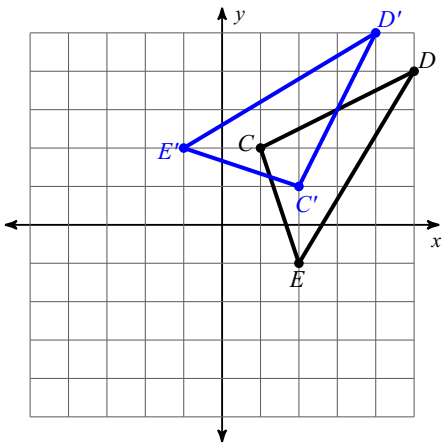
A) translation: $(x, y) \rightarrow (x - 1, y - 6)$
B) reflection across the y-axis
C) reflection across $x = -2$
D) translation: $(x, y) \rightarrow (x + 1, y - 3)$

33)



A) translation: $(x, y) \rightarrow (x - 3, y + 2)$
B) reflection across $x = 1$
C) translation: $(x, y) \rightarrow (x - 7, y - 2)$
D) reflection across $y = 3$

34)



A) translation: $(x, y) \rightarrow (x - 1, y + 1)$
B) reflection across $x = 2$
C) reflection across $y = x$
D) translation: $(x, y) \rightarrow (x - 1, y)$

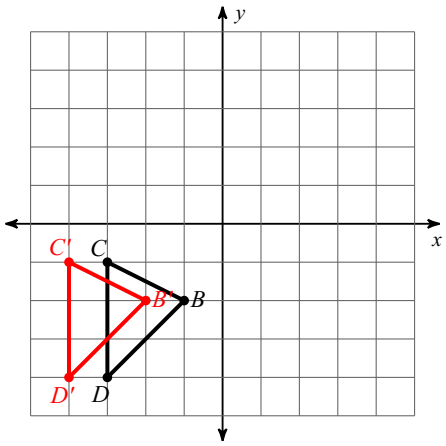
Geometry Name_____ ID: 1

Unit 1 Quiz 2 Study Guide

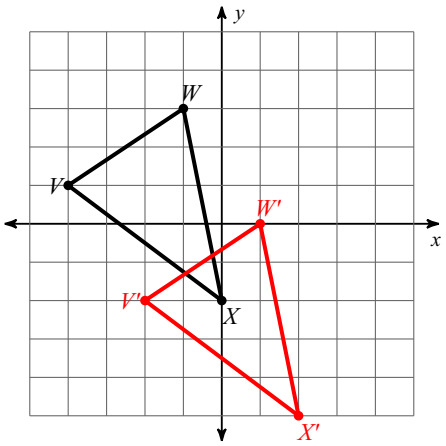
Date_____ Period____

Graph the image of the figure using the transformation given.

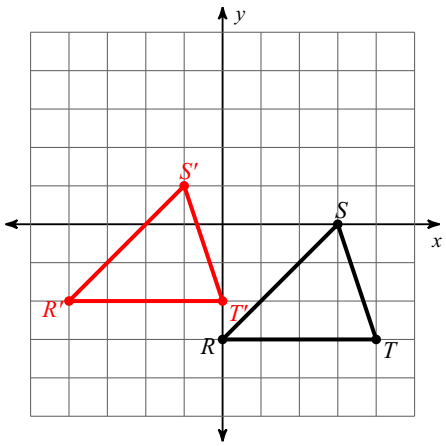
1) translation: 1 unit left



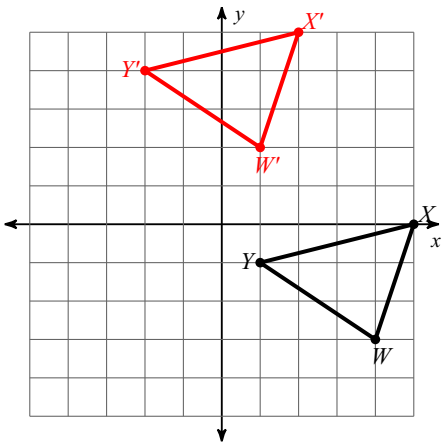
2) translation: 2 units right and 3 units down



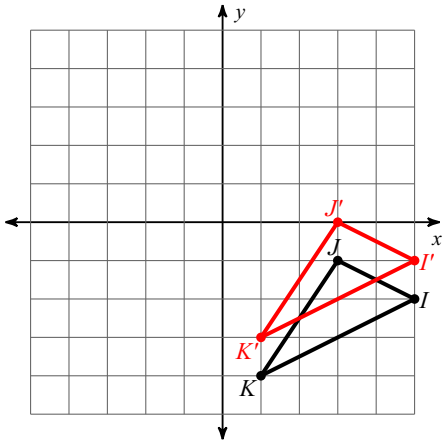
3) translation: 4 units left and 1 unit up



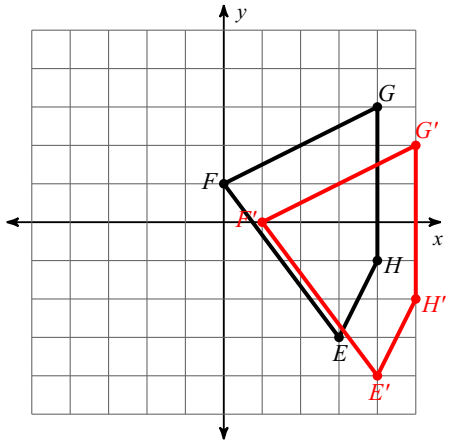
4) translation: 3 units left and 5 units up



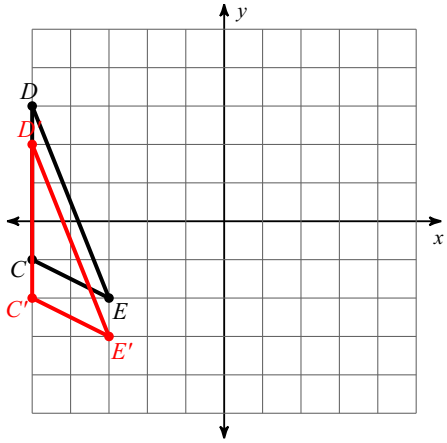
5) translation: $(x, y) \rightarrow (x, y + 1)$



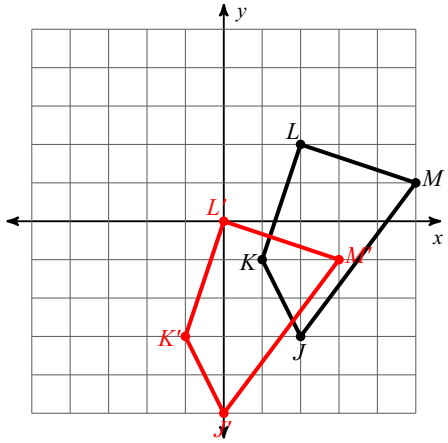
6) translation: $(x, y) \rightarrow (x + 1, y - 1)$



7) translation: $(x, y) \rightarrow (x, y - 1)$

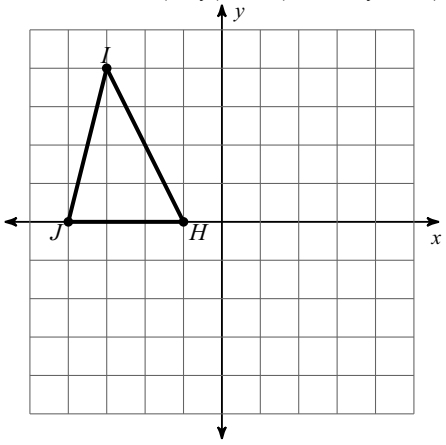


8) translation: $(x, y) \rightarrow (x - 2, y - 2)$



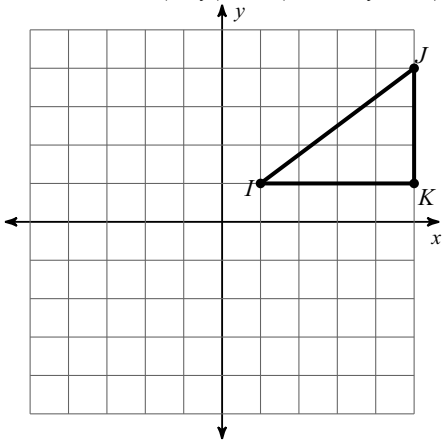
Find the coordinates of the vertices of each figure after the given transformation.

9) translation: $(x, y) \rightarrow (x - 1, y - 5)$



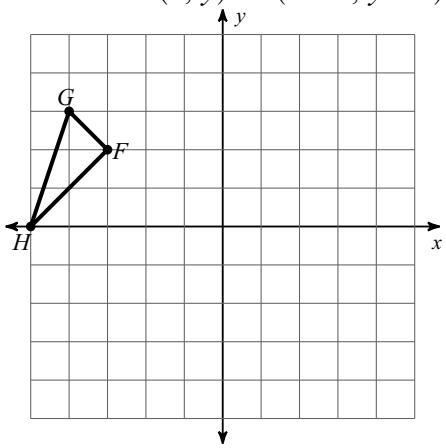
$J'(-5, -5), I'(-4, -1), H'(-2, -5)$

10) translation: $(x, y) \rightarrow (x - 6, y - 1)$



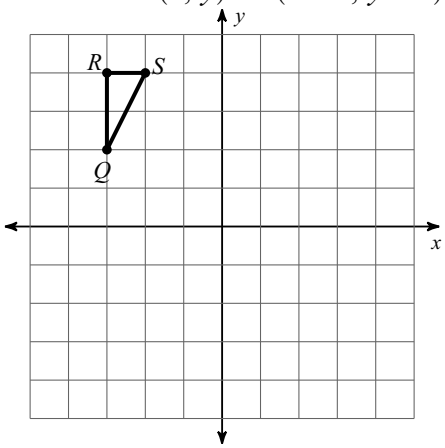
$I'(-5, 0), J'(-1, 3), K'(-1, 0)$

11) translation: $(x, y) \rightarrow (x + 4, y - 1)$



$H'(-1, -1), G'(0, 2), F'(1, 1)$

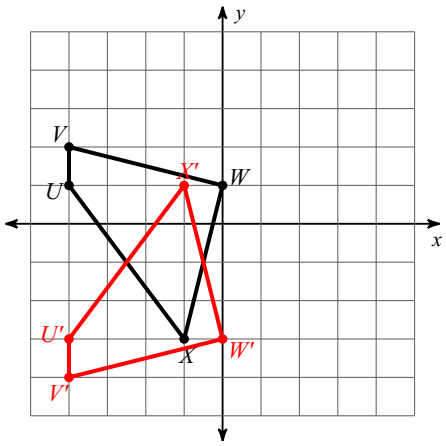
12) translation: $(x, y) \rightarrow (x + 3, y - 4)$



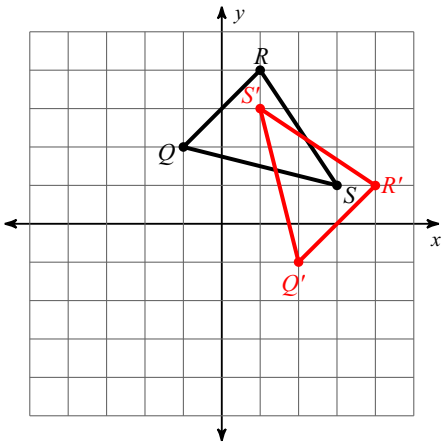
$Q'(0, -2), R'(0, 0), S'(1, 0)$

Graph the image of the figure using the transformation given.

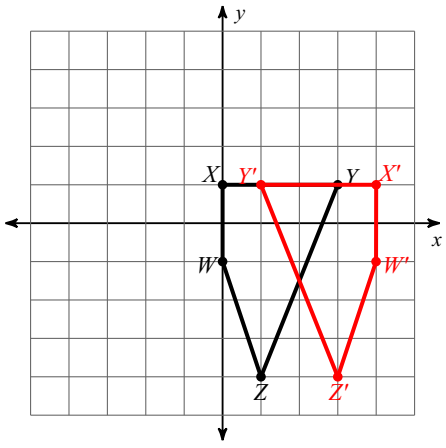
13) reflection across $y = -1$



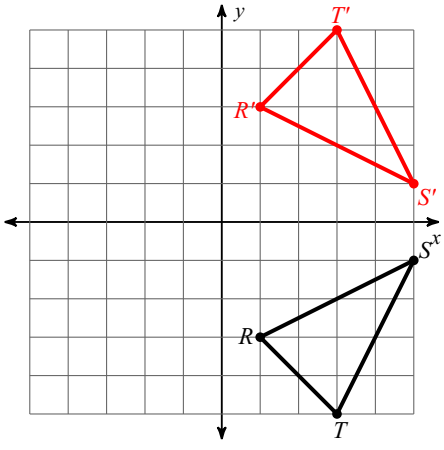
14) reflection across $y = x$



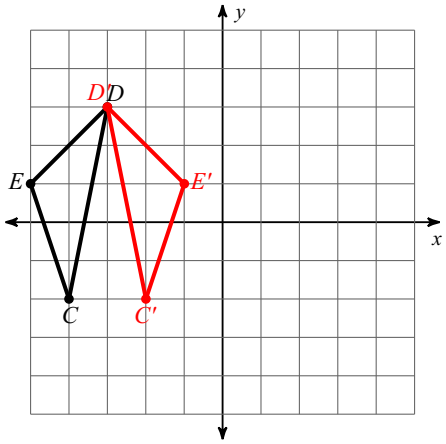
15) reflection across $x = 2$



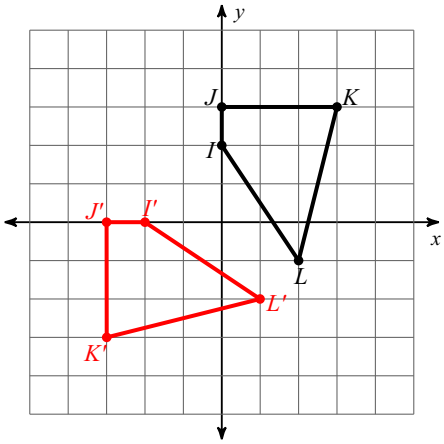
16) reflection across the x-axis



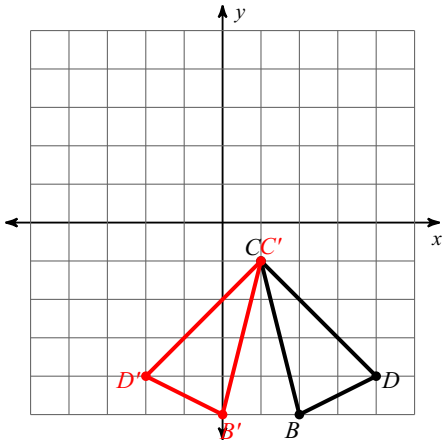
17) reflection across $x = -3$



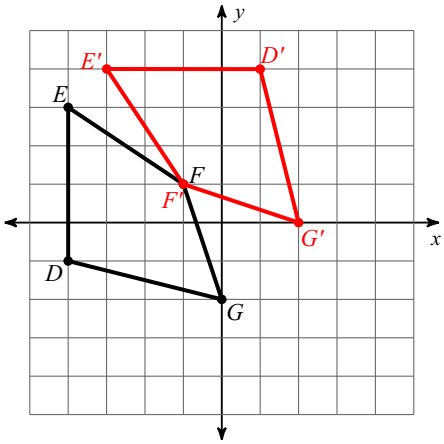
18) reflection across $y = -x$



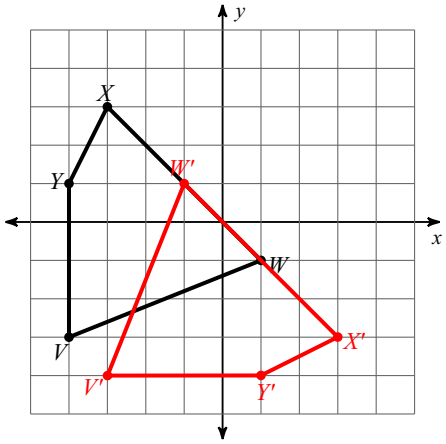
19) reflection across $x = 1$



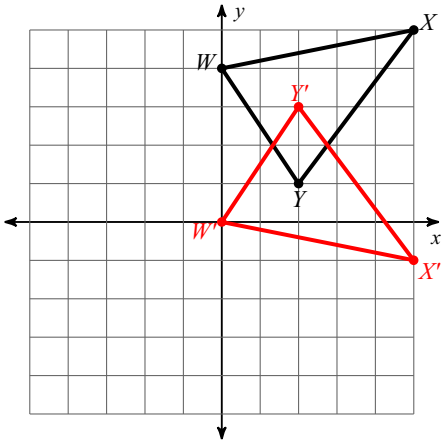
20) reflection across $y = -x$



21) reflection across $y = x$



22) reflection across $y = 2$



Write a rule to describe each transformation.

23) $C(-5, 0)$ to $C'(0, 5)$

*A) reflection across $y = -x$
B) translation: $(x, y) \rightarrow (x + 2, y - 3)$
C) reflection across $y = 1$
D) reflection across $x = -1$

24) $L(-1, 2)$ to $L'(5, -5)$

A) translation: $(x, y) \rightarrow (x + 4, y - 6)$
B) reflection across $y = x$
*C) translation: $(x, y) \rightarrow (x + 6, y - 7)$
D) reflection across $y = -x$

25) $E(1, -5)$ to $E'(-4, -1)$

*A) translation: $(x, y) \rightarrow (x - 5, y + 4)$
B) translation: $(x, y) \rightarrow (x + 3, y + 6)$
C) reflection across $y = -1$
D) translation: $(x, y) \rightarrow (x - 3, y + 6)$

26) $B(-3, 2), C(-1, 3), D(-2, -1)$
to
$B'(-4, 1), C'(-2, 2), D'(-3, -2)$

A) reflection across the x-axis
B) reflection across $y = x$
C) reflection across $x = 1$
*D) translation: $(x, y) \rightarrow (x - 1, y - 1)$

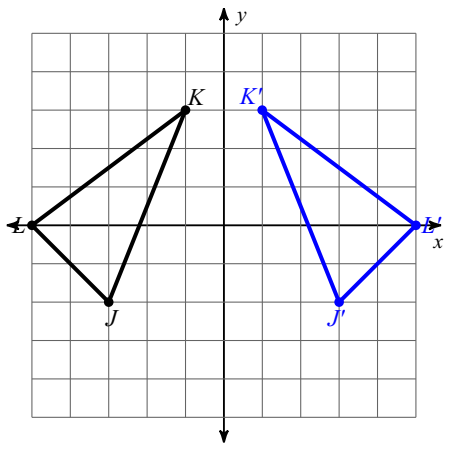
27) $E(1, 4), F(1, 5), G(4, 4)$
to
$E'(-5, -1), F'(-5, 0), G'(-2, -1)$

A) translation: $(x, y) \rightarrow (x - 4, y - 5)$
*B) translation: $(x, y) \rightarrow (x - 6, y - 5)$
C) reflection across $x = 1$
D) reflection across $y = -x$

28) $M(3, 0), L(2, 5), K(5, 3)$
to
$M'(1, -1), L'(0, 4), K'(3, 2)$

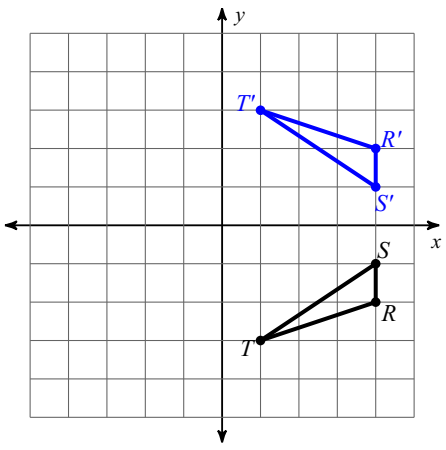
*A) translation: $(x, y) \rightarrow (x - 2, y - 1)$
B) reflection across $x = 2$
C) translation: $(x, y) \rightarrow (x - 5, y - 3)$
D) reflection across $x = 1$

29)



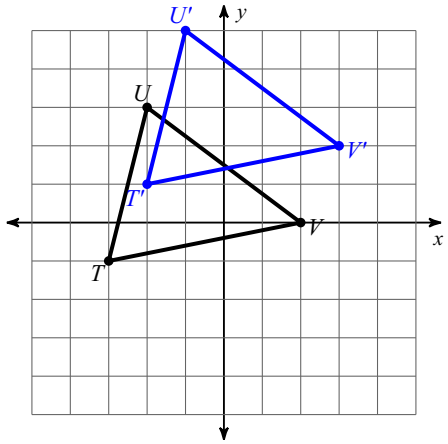
A) translation: $(x, y) \rightarrow (x + 5, y - 1)$
B) reflection across $x = -3$
C) reflection across $x = -2$
*D) reflection across the y-axis

30)



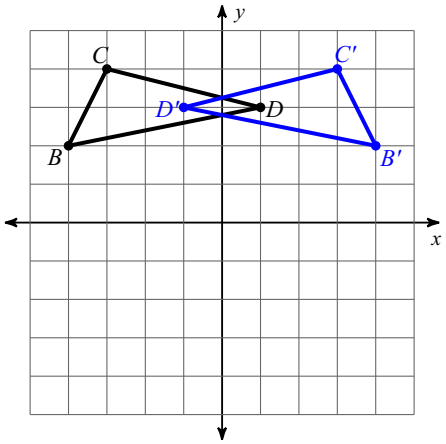
A) reflection across $x = 3$
*B) reflection across the x-axis
C) reflection across $y = -x$
D) reflection across $y = -2$

31)



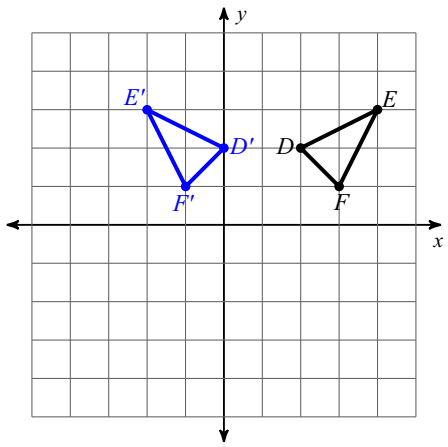
*A) translation: $(x, y) \rightarrow (x + 1, y + 2)$
B) translation: $(x, y) \rightarrow (x, y + 1)$
C) reflection across the y-axis
D) translation: $(x, y) \rightarrow (x, y - 2)$

32)



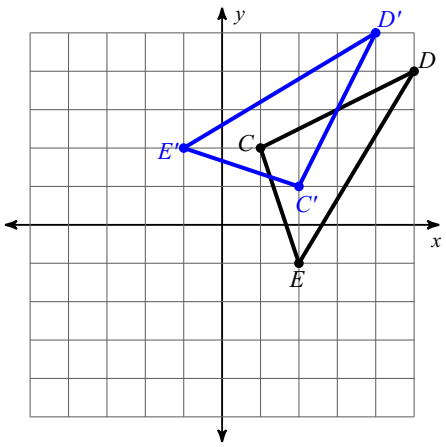
A) translation: $(x, y) \rightarrow (x - 1, y - 6)$
*B) reflection across the y-axis
C) reflection across $x = -2$
D) translation: $(x, y) \rightarrow (x + 1, y - 3)$

33)



A) translation: $(x, y) \rightarrow (x - 3, y + 2)$
*B) reflection across $x = 1$
C) translation: $(x, y) \rightarrow (x - 7, y - 2)$
D) reflection across $y = 3$

34)



A) translation: $(x, y) \rightarrow (x - 1, y + 1)$
B) reflection across $x = 2$
*C) reflection across $y = x$
D) translation: $(x, y) \rightarrow (x - 1, y)$

