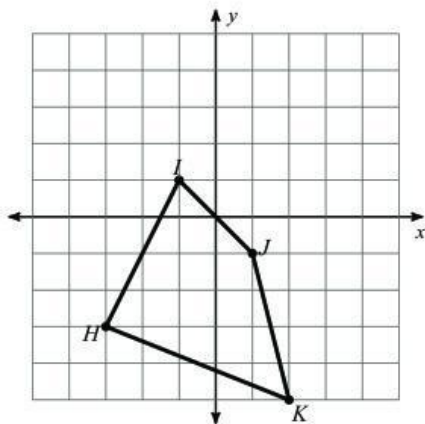


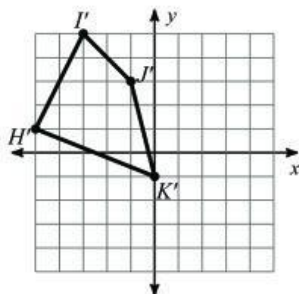
Worksheet 4.1 Translations

Graph the image of the figure using the transformation given.

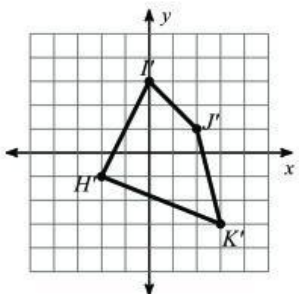
1) translation: 2 units right



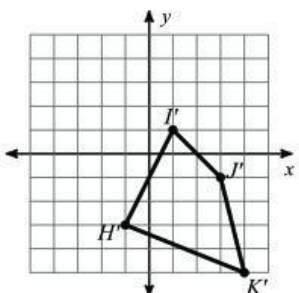
A)



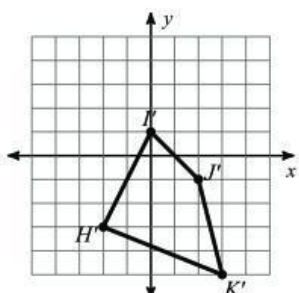
B)



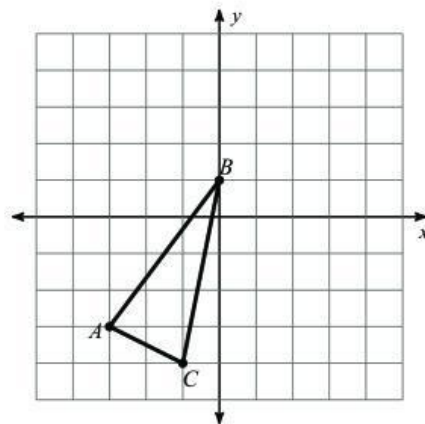
C)



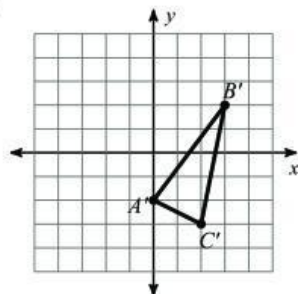
D)



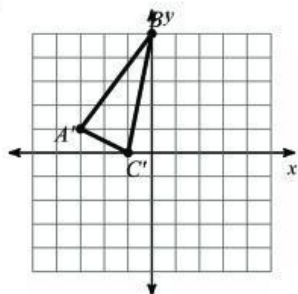
2) translation: 4 units up



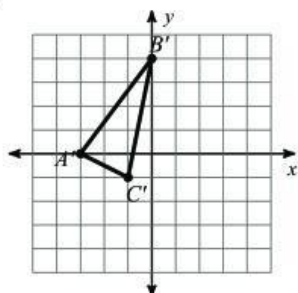
A)



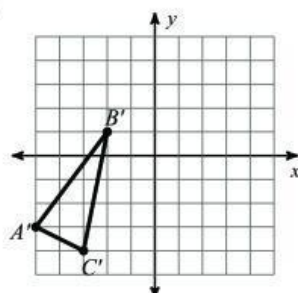
B)



C)

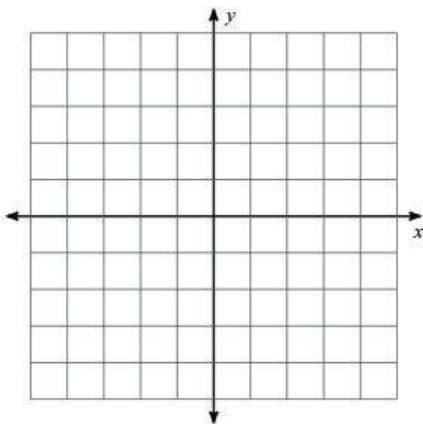


D)

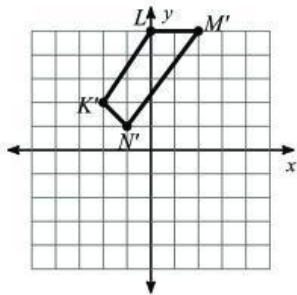


Graph the new image and find the coordinates of the vertices of each figure after the given transformation.

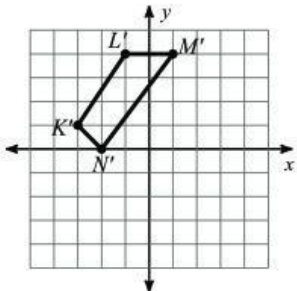
- 3) translation: 1 unit left and 6 units up
 $K(-1, -4), L(1, -1), M(3, -1), N(0, -5)$



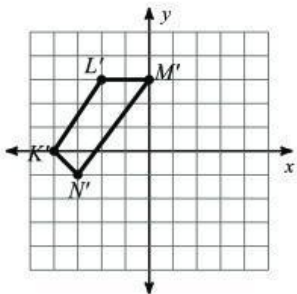
A)



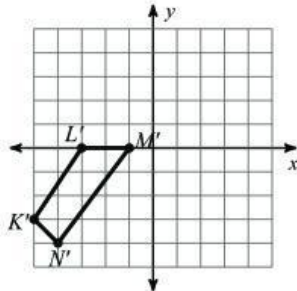
B)



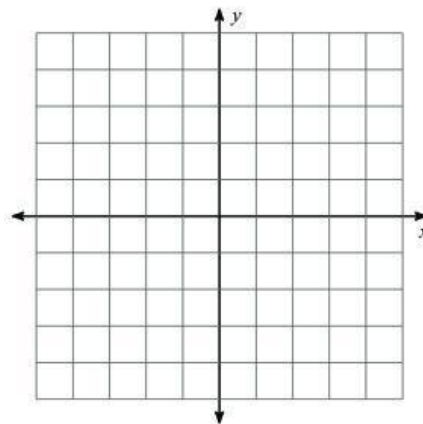
C)



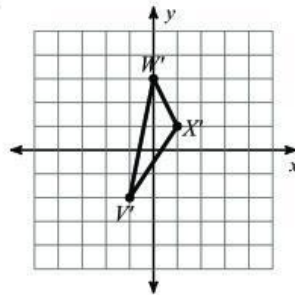
D)



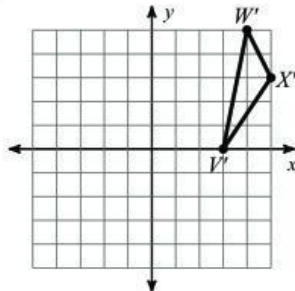
- 4) translation: 3 units right and 1 unit down
 $V(-3, -1), W(-2, 4), X(-1, 2)$



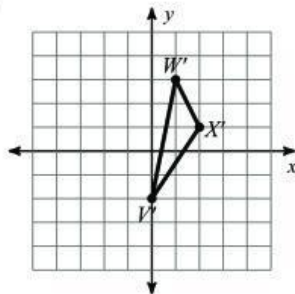
A)



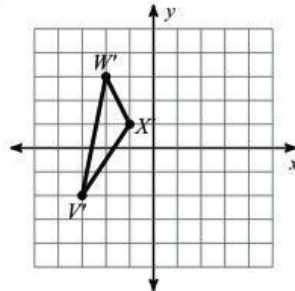
B)



C)

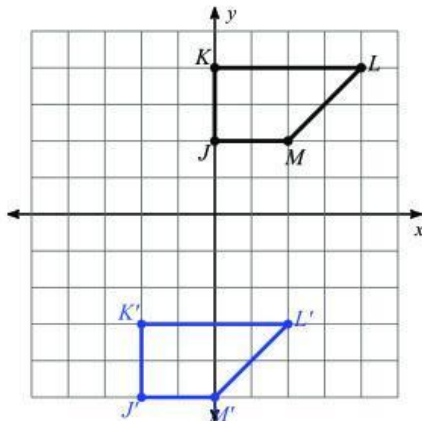


D)



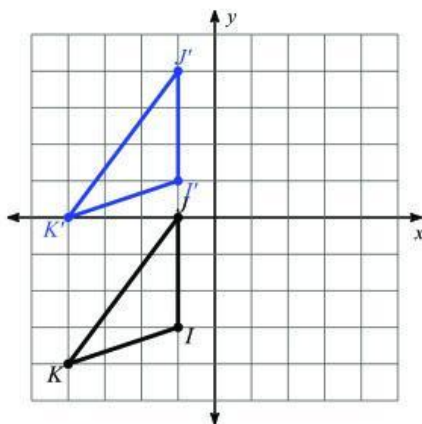
Write a rule to describe each translation.

5)



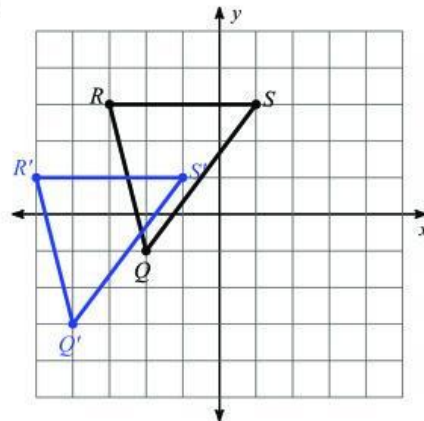
- A) translation: 5 units down
- B) translation: 2 units left and 7 units down
- C) translation: 3 units left and 5 units down
- D) translation: 2 units left and 5 units down

7)



- A) translation: 4 units right and 5 units up
- B) translation: 5 units up
- C) translation: 2 units up
- D) translation: 4 units up

6)



- A) translation: 2 units left and 2 units down
- B) translation: 2 units left and 1 unit up
- C) translation: 4 units down
- D) translation: 2 units left