

### Practice

1. Translate the image by  $(x + 4, y - 6)$

$$A(-2, 4) \rightarrow A' \underline{2, -2}$$

$$B(0, -8) \rightarrow B' \underline{4, -14}$$

$$C(-3, 5) \rightarrow C' \underline{1, -1}$$

2. Translate the image by  $(x - 1, y + 5)$

$$D(1, 2) \rightarrow D' \underline{0, 7}$$

$$E(-3, -5) \rightarrow E' \underline{-4, 0}$$

$$F(4, -1) \rightarrow F' \underline{3, 4}$$

3. Find the pre-image  $(x + 9, y + 13)$

$$G \underline{14, -42} \rightarrow G'(5, -29)$$

$$H \underline{29, -32} \rightarrow H'(20, -19)$$

$$I \underline{30, -17} \rightarrow I'(21, -4)$$

4. Find the pre-image  $(x + 7, y + 19)$

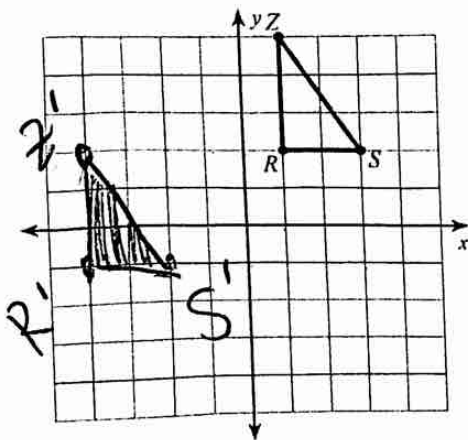
$$G \underline{-9, 37} \rightarrow G'(2, 18)$$

$$H \underline{6, 48} \rightarrow H'(13, 29)$$

$$I \underline{17, 56} \rightarrow I'(24, 37)$$

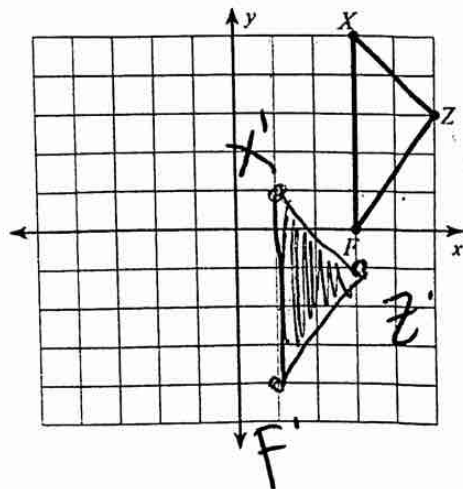
5. Translate the image.

translation:  $(x, y) \rightarrow (x - 3, y - 5)$



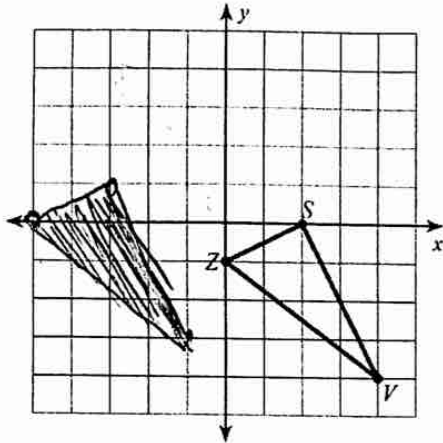
6. Translate the image.

translation:  $(x, y) \rightarrow (x - 2, y - 4)$



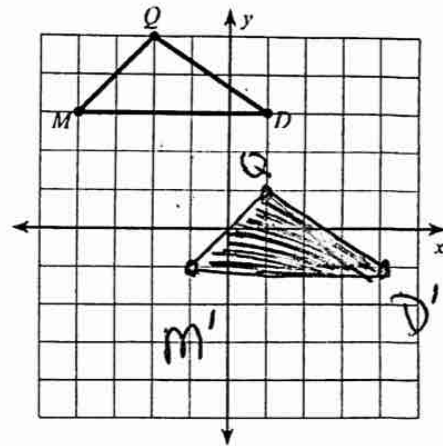
7. Translate the image.

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



8. Translate the image.

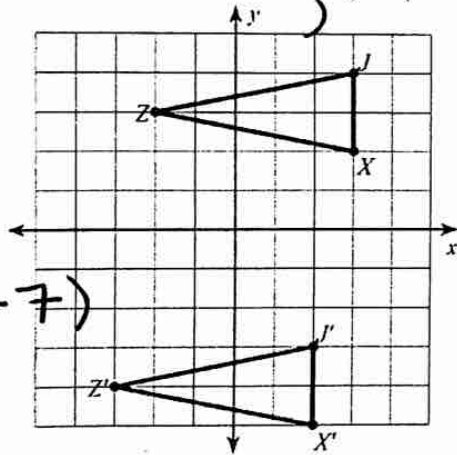
translation:  $(x, y) \rightarrow (x + 3, y - 4)$



Write a rule for the given translation.

9.

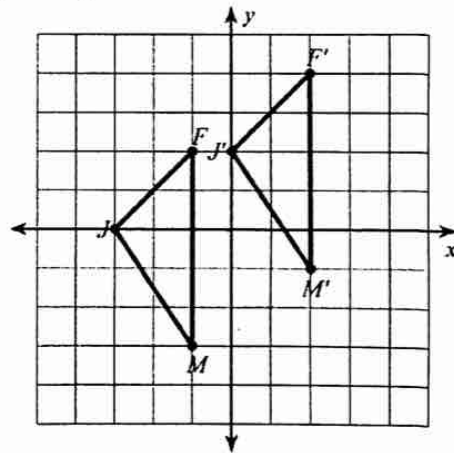
$\leftarrow 1, \downarrow 7$



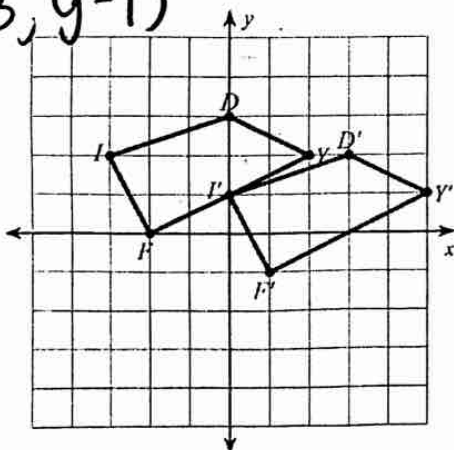
$(x-1, y-7)$

10.

$(x+3, y+2)$



$(x+3, y-1)$



$(x-5, y+2)$

