Translations Worksheets

slide

move an item in any direction without rotating it

Name:
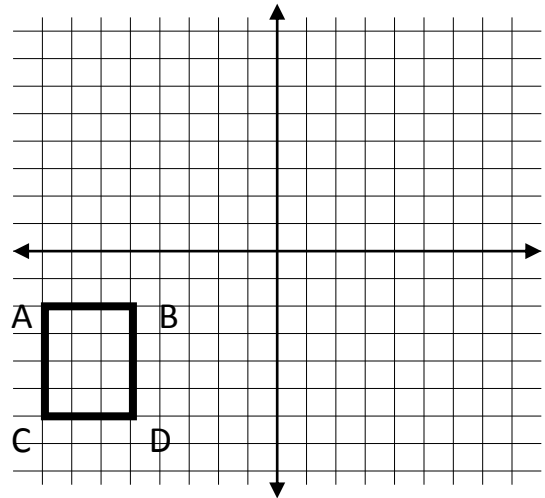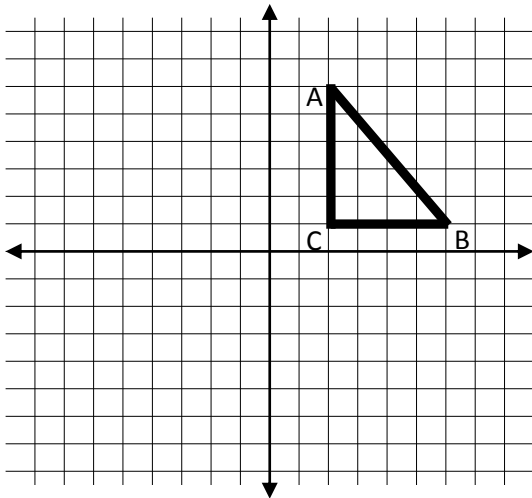
Date: Period:

Sketch the image of the pre-image after the given translation. Label each vertex. Label image vertex as A', B', C' etc.

1. Slide 8 left and 5 down.

2. A(–8, –2) ; B(–5, –2) ; C(–8, –6) ; D(–5, –6)

$$(x, y) \longrightarrow (x + 8, y + 10)$$

3. **Graph and label the polygon determined by the coordinates below, then graph and label the image created by the transformation:**
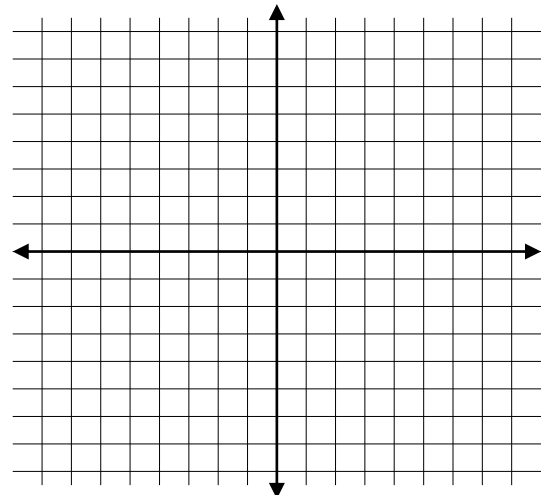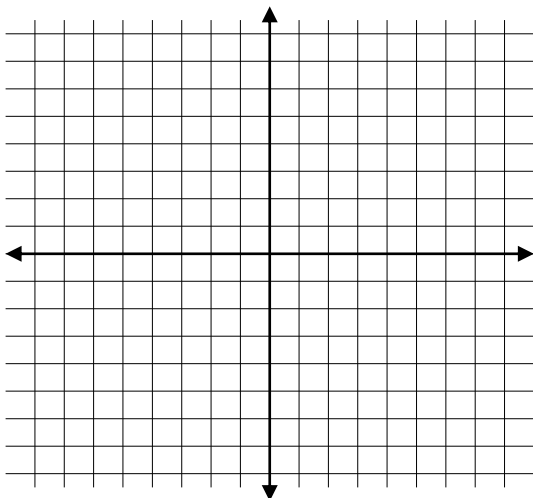
a)

P (4 , 8) Q (2 , 6)
R (2 , 3) S (4 , 5)
$(x, y) \rightarrow (x + 4,\ y - 5)$

b)

A (0, 0)   B (−6, 0)
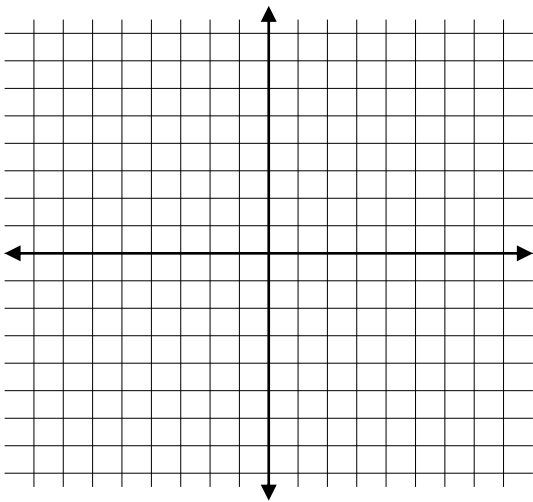C (−6, 3)
$(x, y) \rightarrow (x + 6, y + 3)$

4. **Graph and label the polygon determined by the coordinates below, then graph and label the image created by the transformation:**

a)

P (5 , 3) Q (7 , 4)
R (7 , 1)
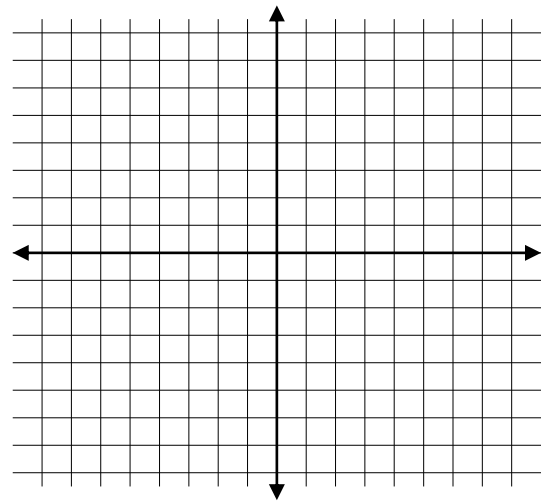
$(x, y) \rightarrow (x, \ y - 5)$

b)

A (−1, 1)   B (1, 1)
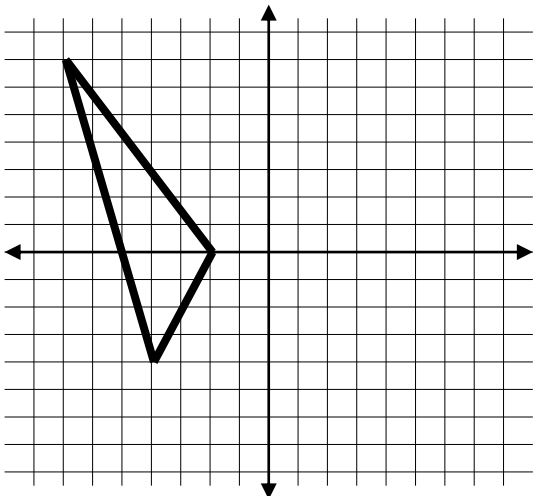C (1, −1)   D (−1, −1)

$(x, y) \rightarrow (x - 5, \ y)$

5. **Describe the translation from the pre-image to the image.**

a)Using words (left, right, up, down, etc.).

b) Using coordinate notation:
$(x, y) \rightarrow (x \qquad , y \qquad)$

Pre-image

Image