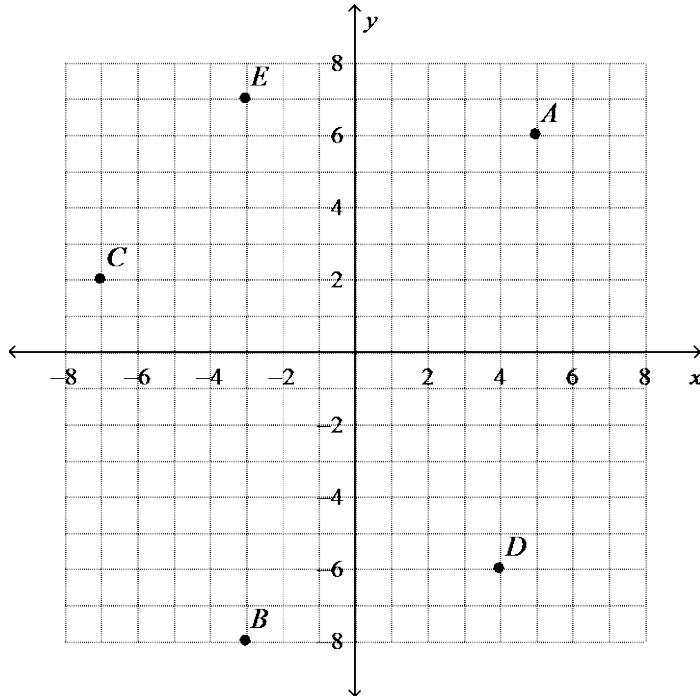
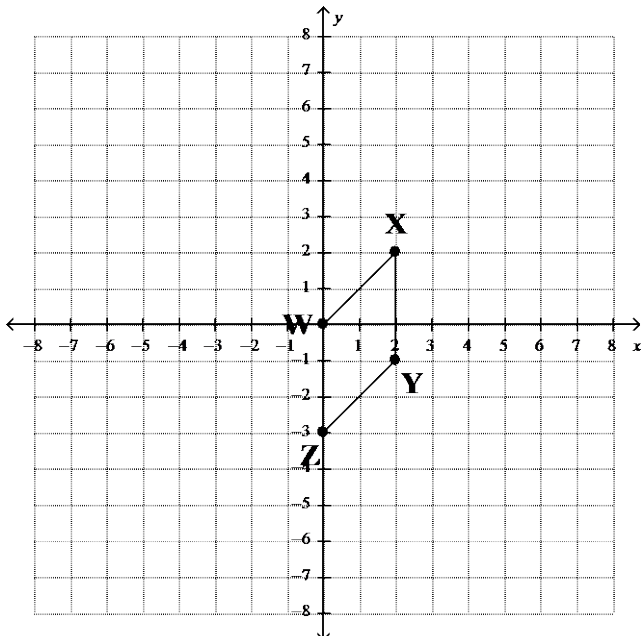


1) Use the graph below to answer the questions.



- a) Find the rule to describe the translation from point *A* to point *B*.
- b) Find the rule to describe the translation from point *C* to point *D*.
- c) Find the rule to describe the translation from point *E* to point *A*.

2) Sketch and label the translation of the quadrilateral *WXYZ* under the rule $(x, y) \rightarrow (x - 2, y + 4)$.

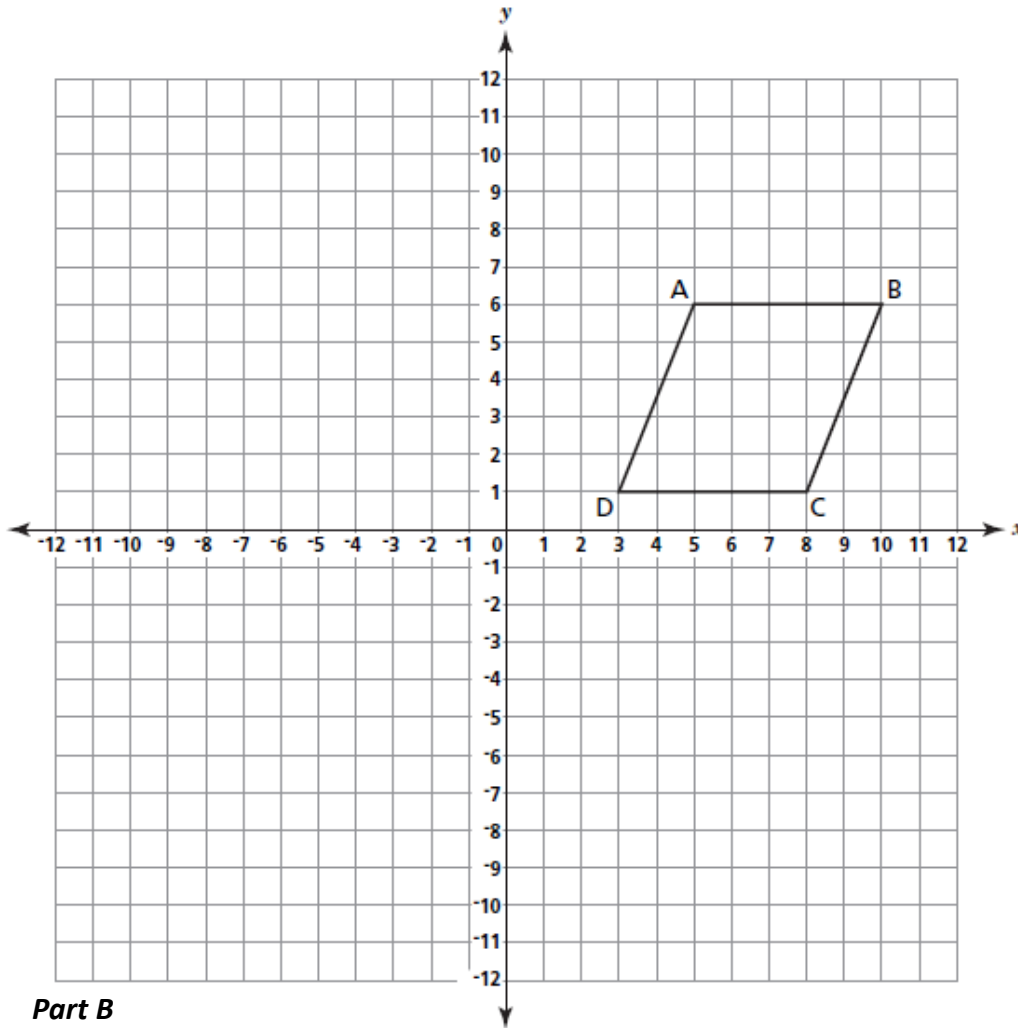




3) Quadrilateral $ABCD$ is plotted on the grid below.

Part A

On the graph, draw the translation of polygon $ABCD$ eight units to the left and seven units down. Label the image $A'B'C'D'$.



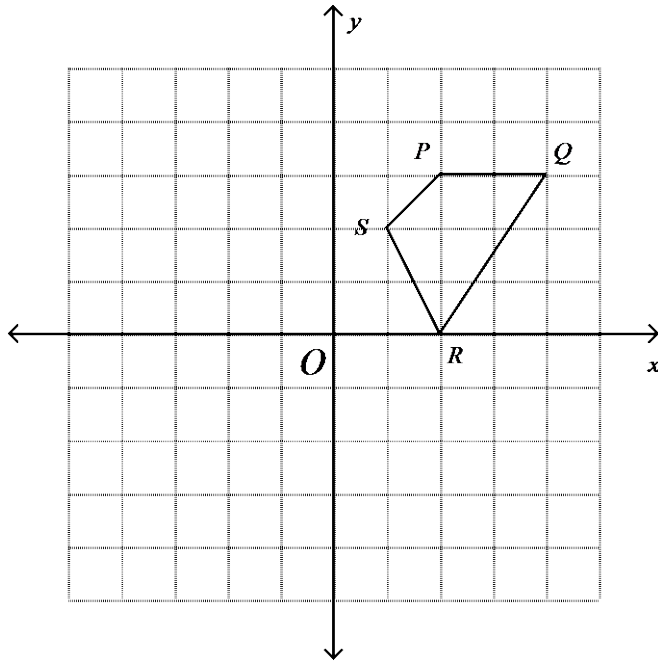
Part B

On the lines below, explain how you determined the location of A' .



4) Quadrilateral $PQRS$ is plotted on the grid below.

- a) On the graph, draw the translation of polygon $PQRS$ three units to the left and four units down. Label the image $P'Q'R'S'$.



- b) Create polygon $P''Q''R''S''$ by translating polygon $P'Q'R'S'$ using the rule $(x, y) \rightarrow (x + 2, y + 1)$. What will be the coordinates of point Q'' ? _____
- c) On the line below, write a single translation rule from polygon $PQRS$ to polygon $P''Q''R''S''$.
