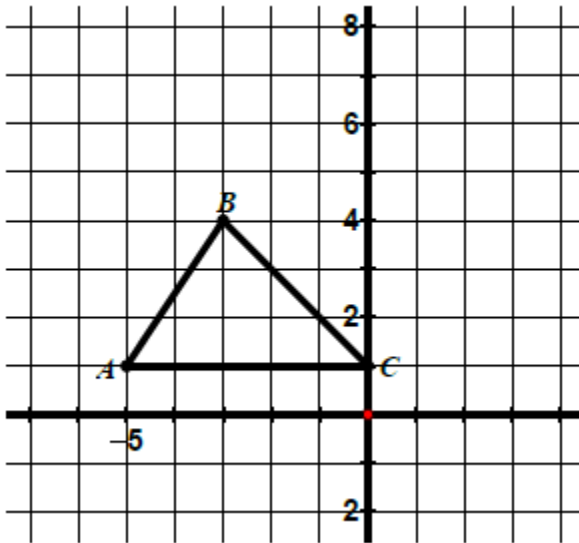


1. Translate the figure below according to the rule $(x, y) \rightarrow (x + 3, y + 2)$ and label the image.



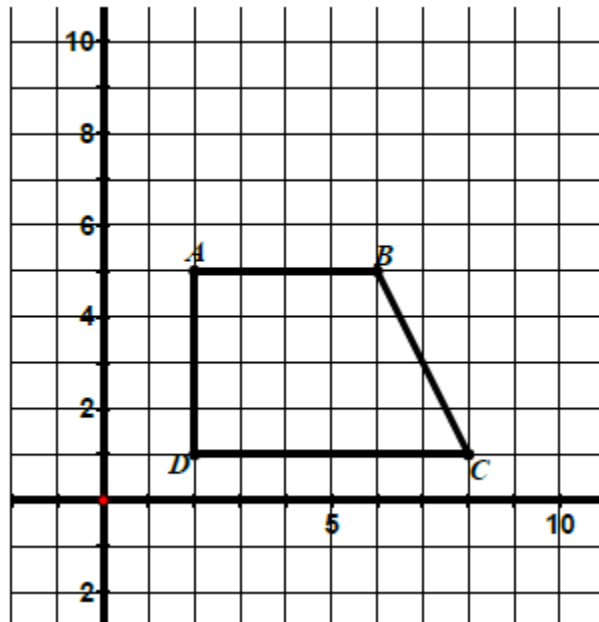
A. If the slope of \overline{BC} is -1 , determine the slope of $\overline{B'C'}$ without doing any calculations.

B. If the length of \overline{BC} is $3\sqrt{2}$, determine the length of $\overline{B'C'}$ without doing any calculations.

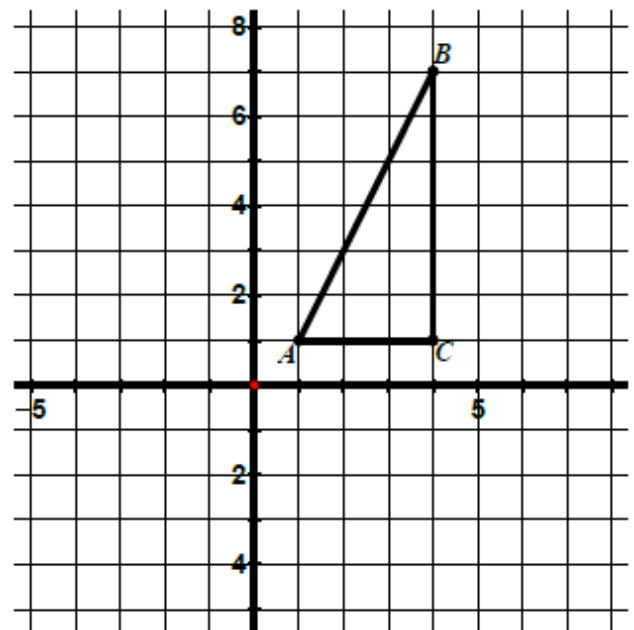
C. Determine the slopes of \overline{AB} and of $\overline{A'B'}$. What do you notice about the slopes of corresponding segments of a translated figure?

D. Using a ruler, draw a line connecting corresponding vertices in the image and pre-image. Find the slopes of $\overline{AA'}$, $\overline{BB'}$, and $\overline{CC'}$. What do you notice about the slopes of the segments connecting corresponding vertices of the image and pre-image of a translated figure?

2. Translate the figure below according to the rule $(x, y) \rightarrow (x - 1, y + 5)$ and label the image.



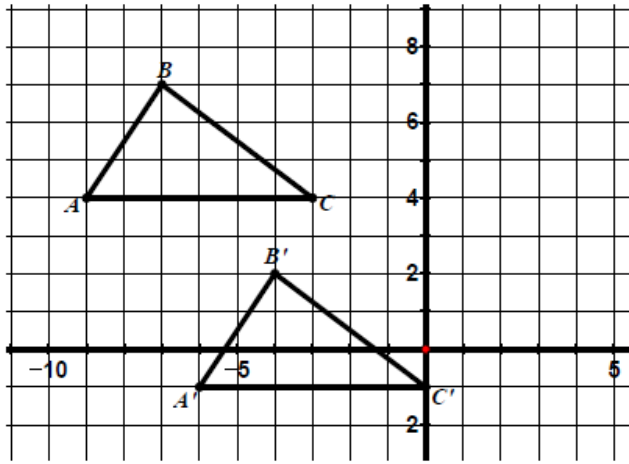
3. Translate the figure below according to the rule $(x, y) \rightarrow (x, y - 4)$ and label the image.



For #4 – 7, write a coordinate rule to describe the translation. Then answer the questions.

4. Coordinate Rule: _____

|



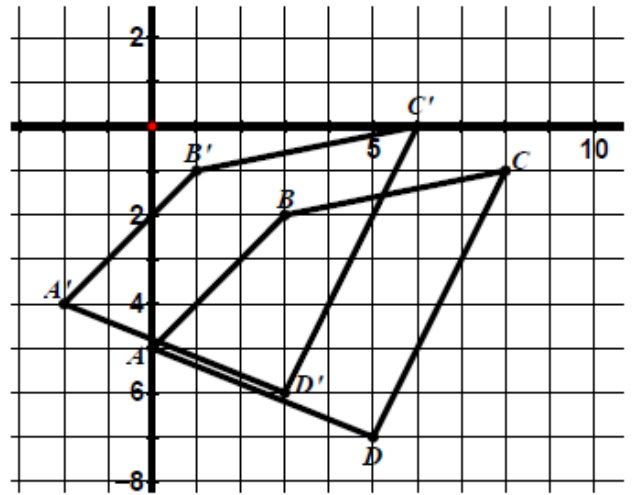
A. The slope of $\overline{BB'}$ is $-\frac{5}{3}$. Name two other segments that also have a slope of $-\frac{5}{3}$.

B. If the length of $\overline{BB'}$ is $\sqrt{34}$, determine the length of $\overline{CC'}$ without doing any calculations.

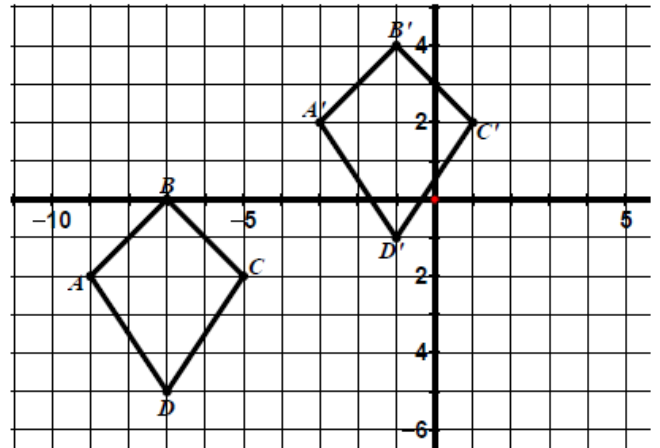
C. Determine the length of \overline{AC} and of $\overline{A'C'}$.

D. Determine the slope of \overline{AC} and of $\overline{A'C'}$.

5. Coordinate Rule: _____



6. Coordinate Rule: _____



7. Coordinate Rule: _____

