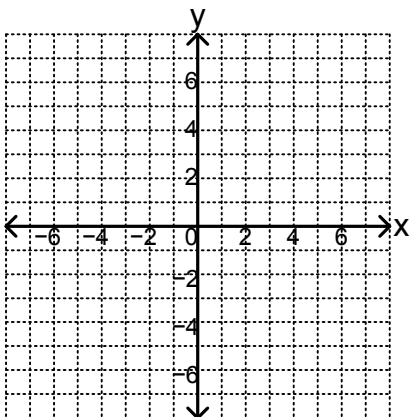


Transform It

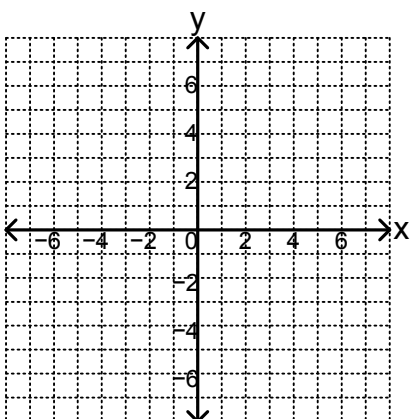
1. For part a, part b, and part c graph the original trapezoid: **A**(5, -2), **B**(2, -2), **C**(2.5, -3), **D**(4.5, -3) and trace in blue. Label the corresponding coordinates of the image **A'B'C'D'** and trace in red.

a. Translate trapezoid **ABCD** 4 units up.



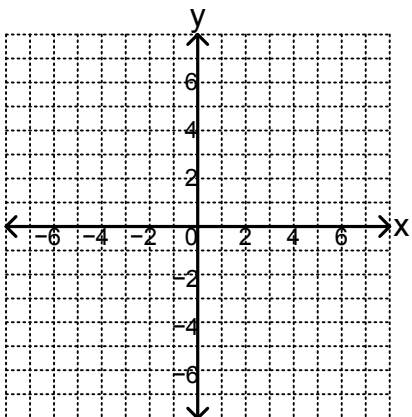
- Describe how the x -coordinate and the y -coordinate are affected when trapezoid **ABCD** is translated 4 units up.
- Write an expression to represent the x -coordinate and the y -coordinate of each vertex of the image if (x, y) represents the coordinates of the original trapezoid.

b. Reflect trapezoid **ABCD** over the x -axis.



- Describe how the x -coordinate and the y -coordinate are affected when trapezoid **ABCD** is reflected over the x -axis.
- Write an expression to represent the x -coordinate and the y -coordinate of each vertex of the image if (x, y) represents the coordinates of the original trapezoid.

c. Reflect trapezoid **ABCD** over the y -axis.

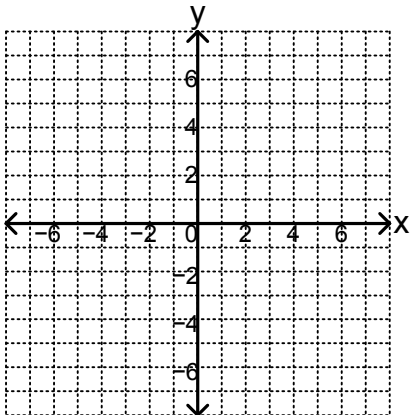


- Describe how the x -coordinate and the y -coordinate are affected when trapezoid **ABCD** is reflected over the y -axis.
- Write an expression to represent the x -coordinate and the y -coordinate of each vertex of the image if (x, y) represents the coordinates of the original trapezoid.

Transform It

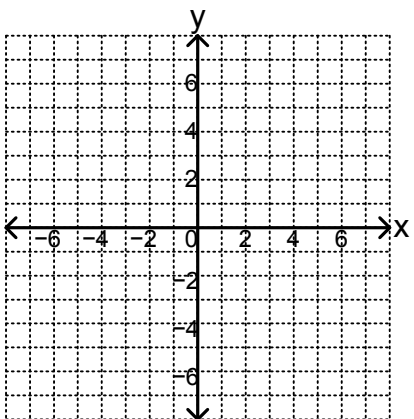
2. For part a and part b, graph the original trapezoid: **A**(5, 2), **B**(2, 2), **C**(2.5, 1), **D**(4.5, 1) and trace in blue. Label the corresponding coordinates of the image **A'B'C'D'** and trace in red.

a. Translate trapezoid **ABCD** 5 units down.



- Describe how the x -coordinate and the y -coordinate are affected when trapezoid **ABCD** is translated 5 units down.
- Write an expression to represent the x -coordinate and the y -coordinate of each vertex of the image if (x, y) represents the coordinates of the original trapezoid.

b. Translate trapezoid **ABCD** 5 units left.

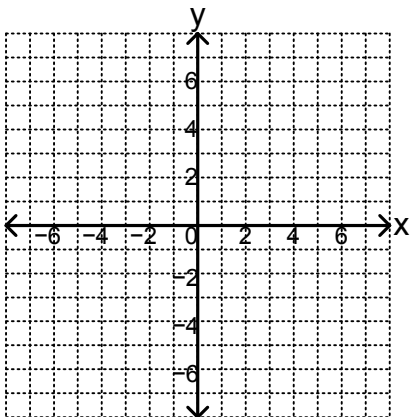


- Describe how the x -coordinate and the y -coordinate are affected when trapezoid **ABCD** is translated 5 units left.
- Write an expression to represent the x -coordinate and the y -coordinate of each vertex of the image if (x, y) represents the coordinates of the original trapezoid.

Transform It

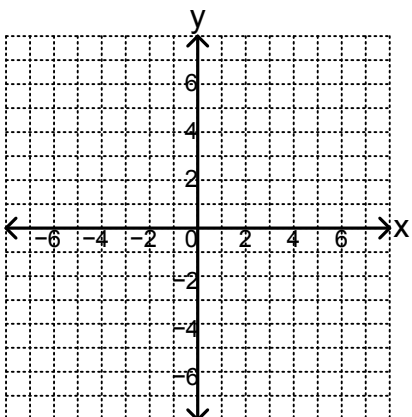
3. For part a and part b, graph the original triangle: **A**(2, 5), **B**(2, 2), **C**(6, 2) and trace in blue. Label the corresponding coordinates of the image **A'B'C'** and trace in red.

a. Reflect triangle **ABC** across the *y*-axis.



- Describe how the *x*-coordinate and the *y*-coordinate are affected when triangle **ABC** is reflected over the *y*-axis.
- Write an expression to represent the *x*-coordinate and the *y*-coordinate of each vertex of the image if (x, y) represents the coordinates of the original triangle.

b. Translate triangle **ABC** to Quadrant II so **B'** of the image has the coordinates $(-5, 1)$.



- Describe how the *x*-coordinate and the *y*-coordinate are affected when triangle **ABC** is translated to Quadrant II and **B'** is located at point $(-5, 1)$.
- Write an expression to represent the *x*-coordinate and the *y*-coordinate of each vertex of the image if (x, y) represents the coordinates of the original trapezoid.