Math Practice - Grade 8

M8 Transformations, congruence, similarity - Move a figure and write the new coordinates

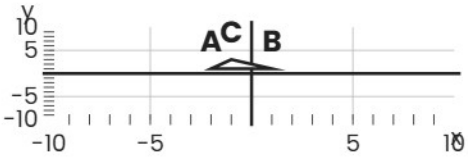
M8 8.G.A.1, 8.G.A.2, 8.G.A.3, 8.G.A.4

Name: _____ Date: _____

Move the figure as described. Write the new coordinates of the named point.

Example: Translate the triangle 3 units left. Write the new coordinates of point C.

How: A translation adds the same amount to every x and every y. A reflection over the x axis flips the sign of y, and over the y axis flips the sign of x. A dilation multiplies every coordinate by the scale factor.



Point C (-4, 3)

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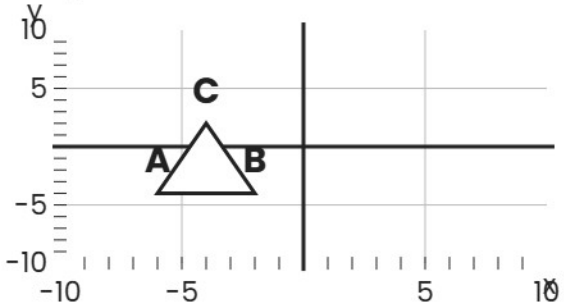
1 **Dilate the triangle by a scale factor of 1/2 about the origin. Write the new coordinates of point A.**



Point A ____

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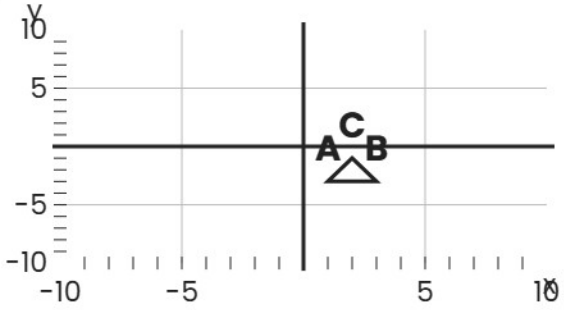
2 **Translate the triangle 1 units left and 5 units down. Write the new coordinates of point C.**



Point C ____

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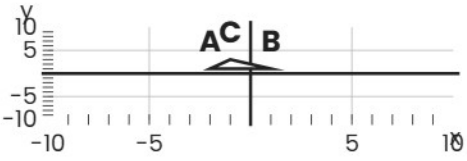
Name: _____ Date: _____

Move the figure as described. Write the new coordinates of the named point.

Example: Translate the triangle 2 units left and 5 units down. Write the new coordinates of point A.

How: A translation adds the same amount to every x and every y. A reflection over the x axis flips the sign of y, and over the y axis flips the sign of x. A dilation multiplies every coordinate by the scale factor.



Point A (−4, −4)

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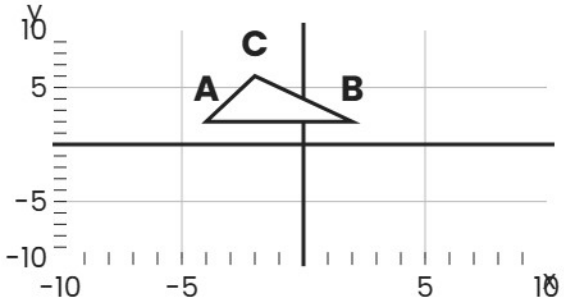
1 **Dilate the triangle by a scale factor of 1/2 about the origin. Write the new coordinates of point C.**



Point C ____

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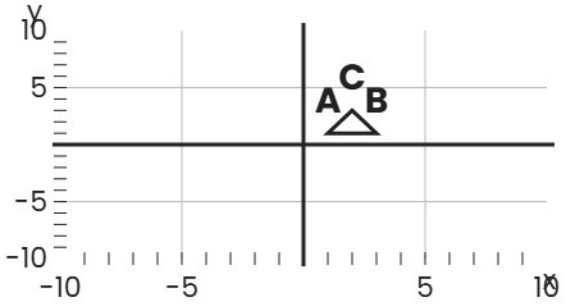
2 **Dilate the triangle by a scale factor of 2 about the origin. Write the new coordinates of point C.**



Point C ____

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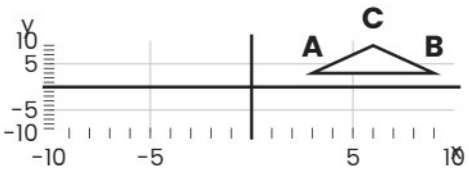
Name: _____ Date: _____

Move the figure as described. Write the new coordinates of the named point.

Example: Dilate the triangle by a scale factor of 1/3 about the origin. Write the new coordinates of point A.

How: A translation adds the same amount to every x and every y. A reflection over the x axis flips the sign of y, and over the y axis flips the sign of x. A dilation multiplies every coordinate by the scale factor.



Point A (1, 1)

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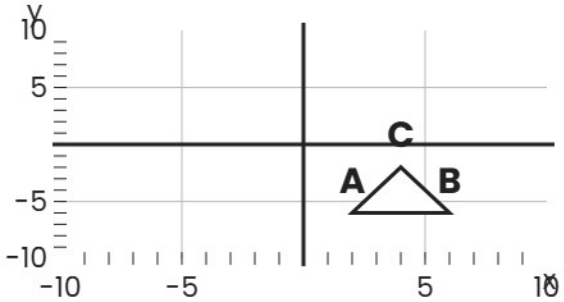
1 **Dilate the triangle by a scale factor of 1/2 about the origin. Write the new coordinates of point A.**



Point A ____

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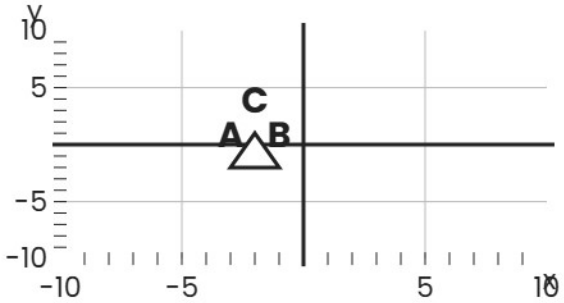
2 **Rotate the triangle 180 degrees about the origin. Write the new coordinates of point A.**



Point A ____