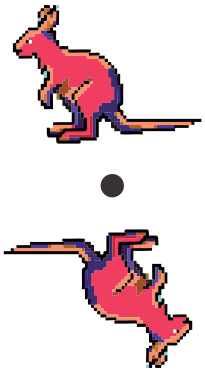
Transformations and Symmetries Practice

Name: _____ Date: _____

Question 1

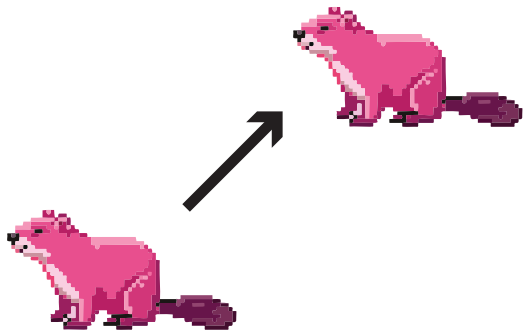
Name the transformation applied to the figure

I.



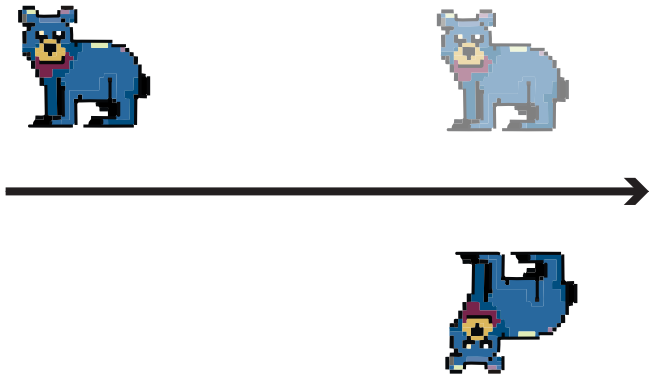
Transformation :

II.



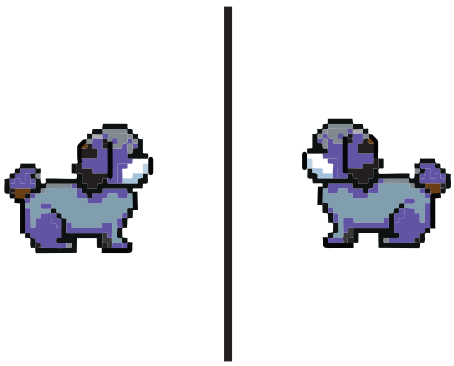
Transformation :

III.



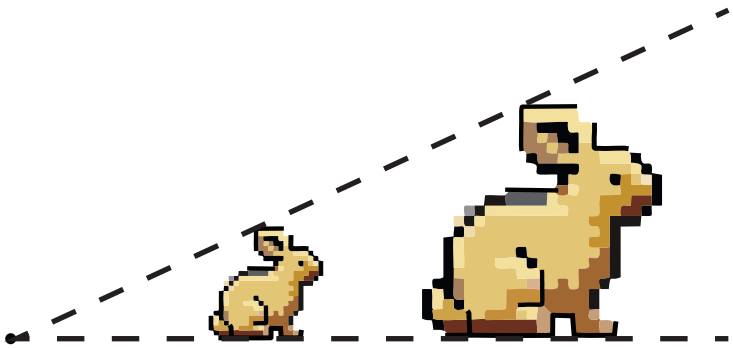
Transformation :

IV.



Transformation :

V.



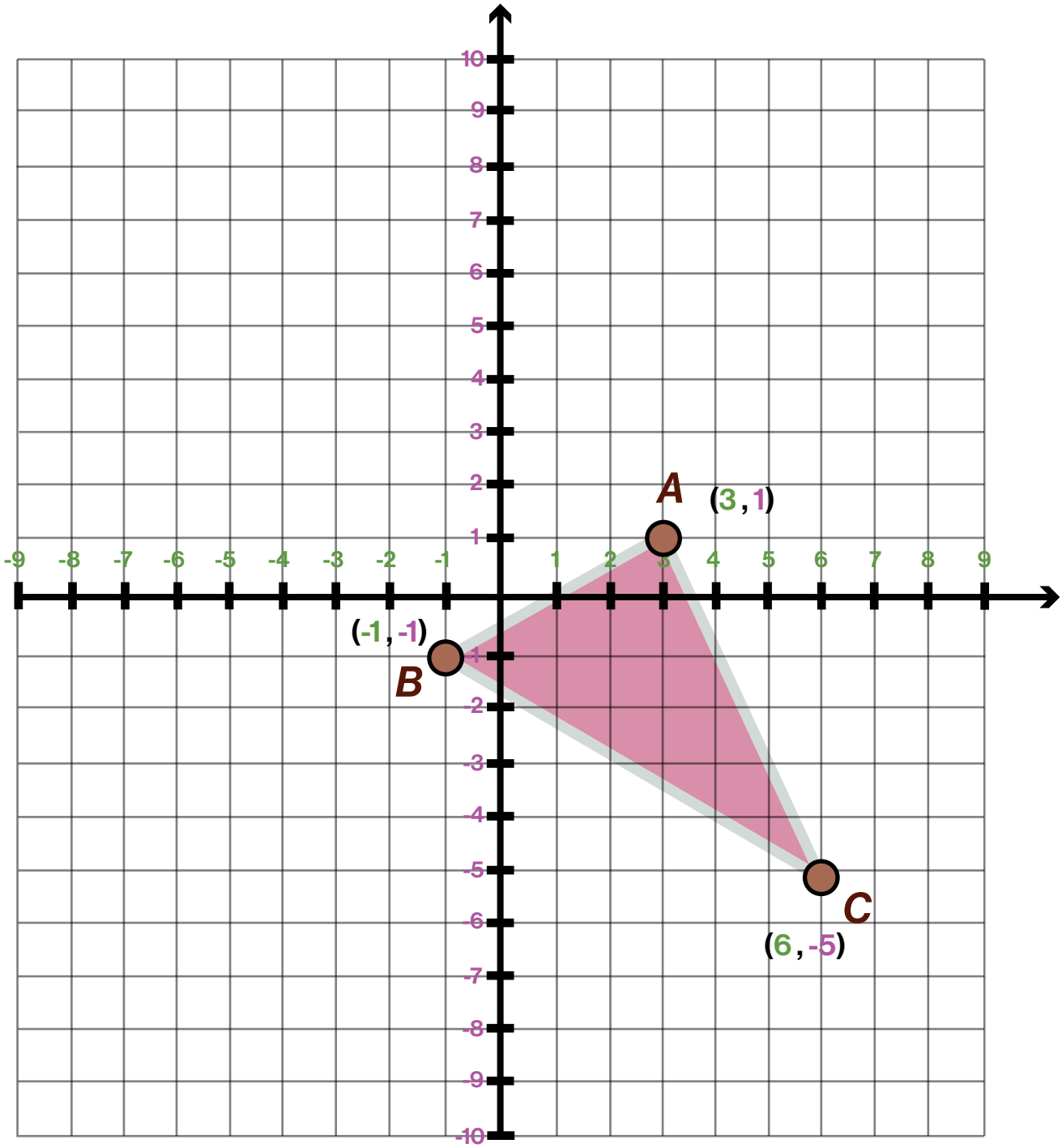
Transformation :

Transformations and Symmetries Practice

Question 2

Perform the translation

$(x, y) \longrightarrow (x + 3, y - 2)$

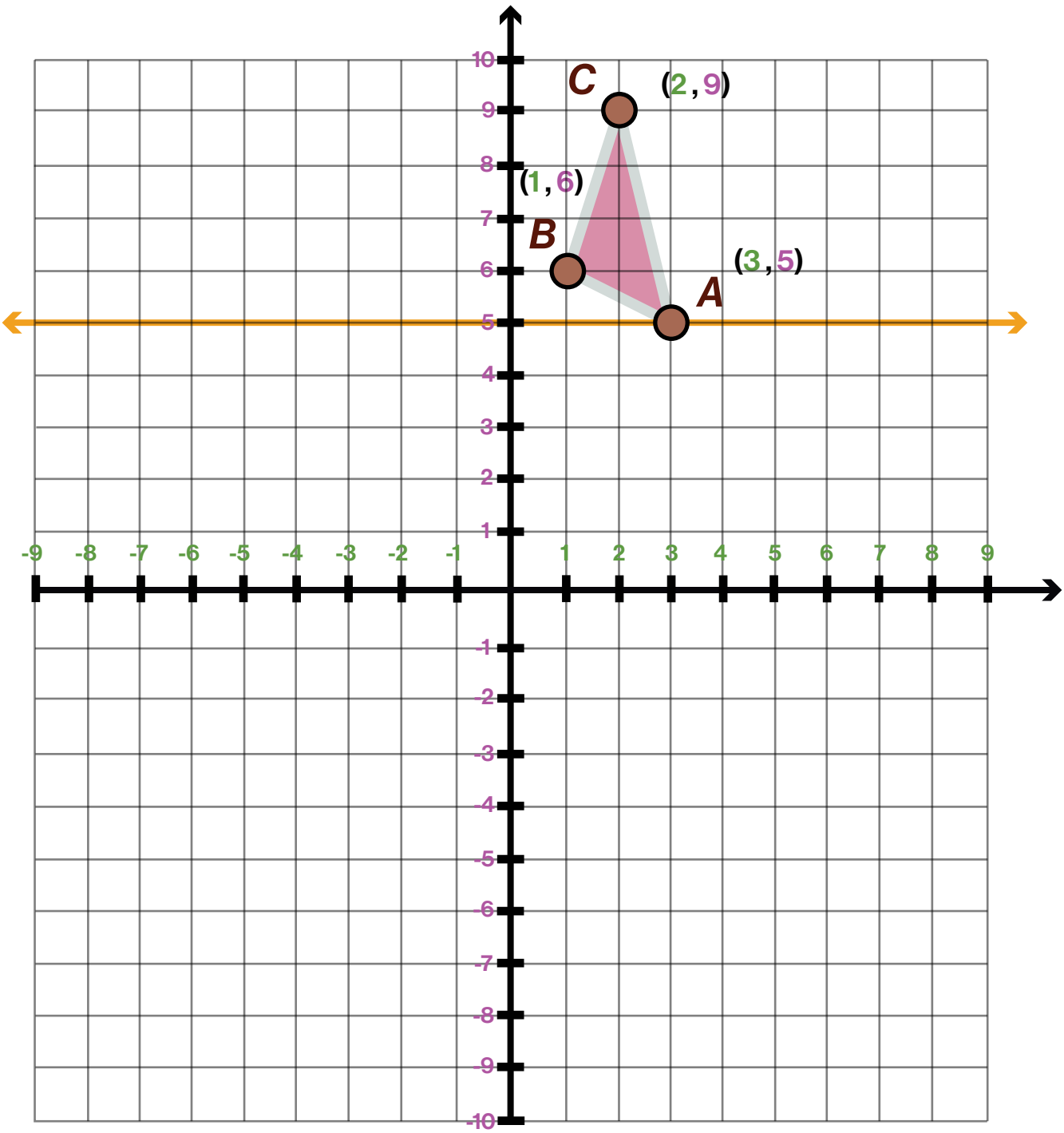


Transformations and Symmetries Practice

Question 3

Perform the reflection

Line of Reflection : y = 5

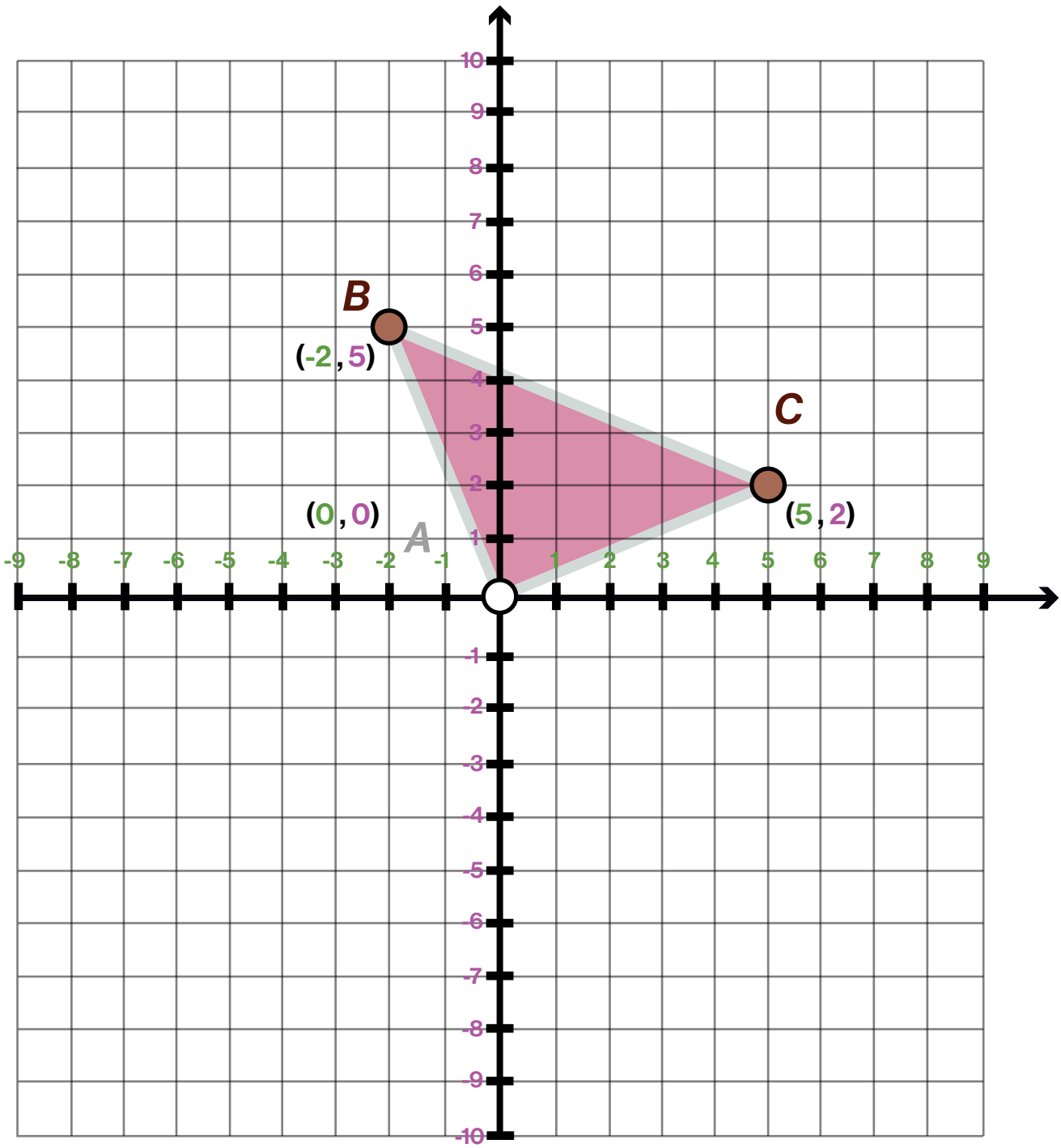


Transformations and Symmetries Practice

Question 4

Rotate the figure 180° about the center of rotation

Center of Rotation: (0 , 0)



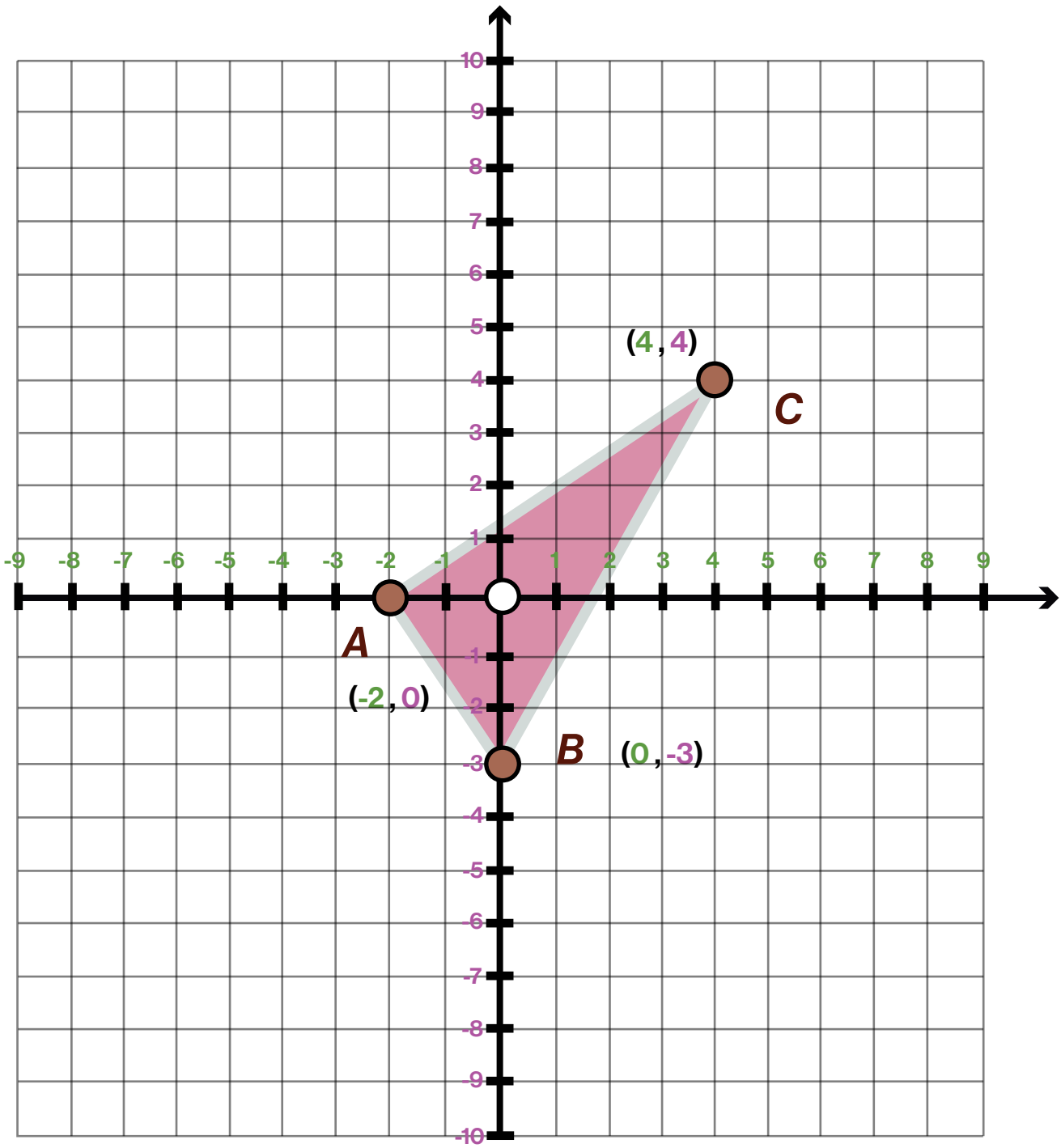
Transformations and Symmetries Practice

Question 5

Perform the dilation

Center of Dilation : (0 , 0)

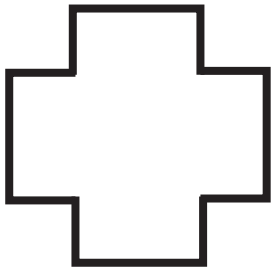
Scale Factor : 2 / 3



Transformations and Symmetries Practice

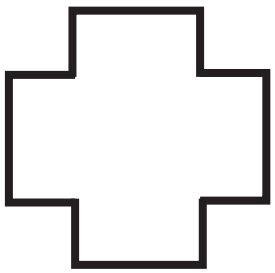
Question 6

Draw the lines of symmetry for the figure



Question 7

Determine if the figure has rotational symmetry



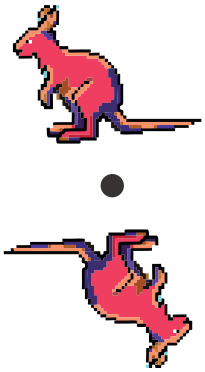
Transformations and Symmetries Practice

Name: **Key** Date: _____

Question 1

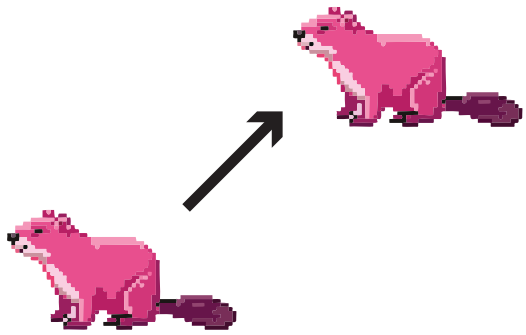
Name the transformation applied to the figure

I.



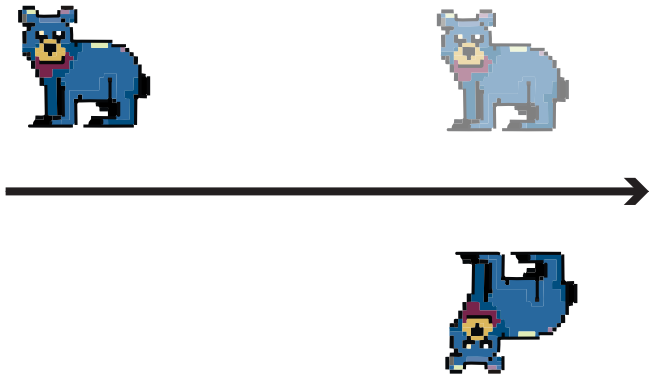
Transformation : Rotation

II.



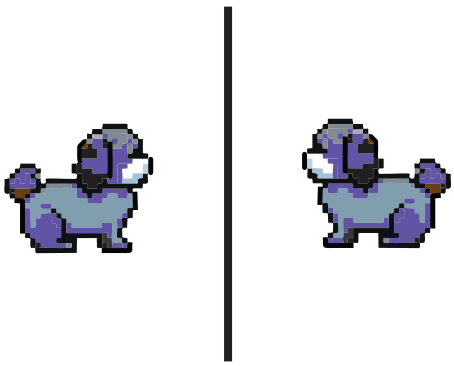
Transformation : Translation

III.



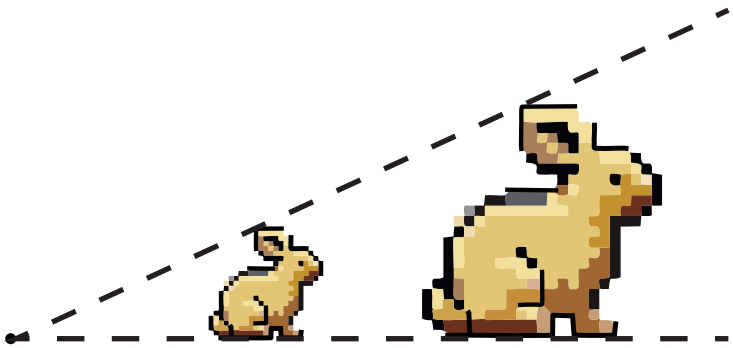
Transformation : Glide Reflection

IV.



Transformation : Reflection

V.



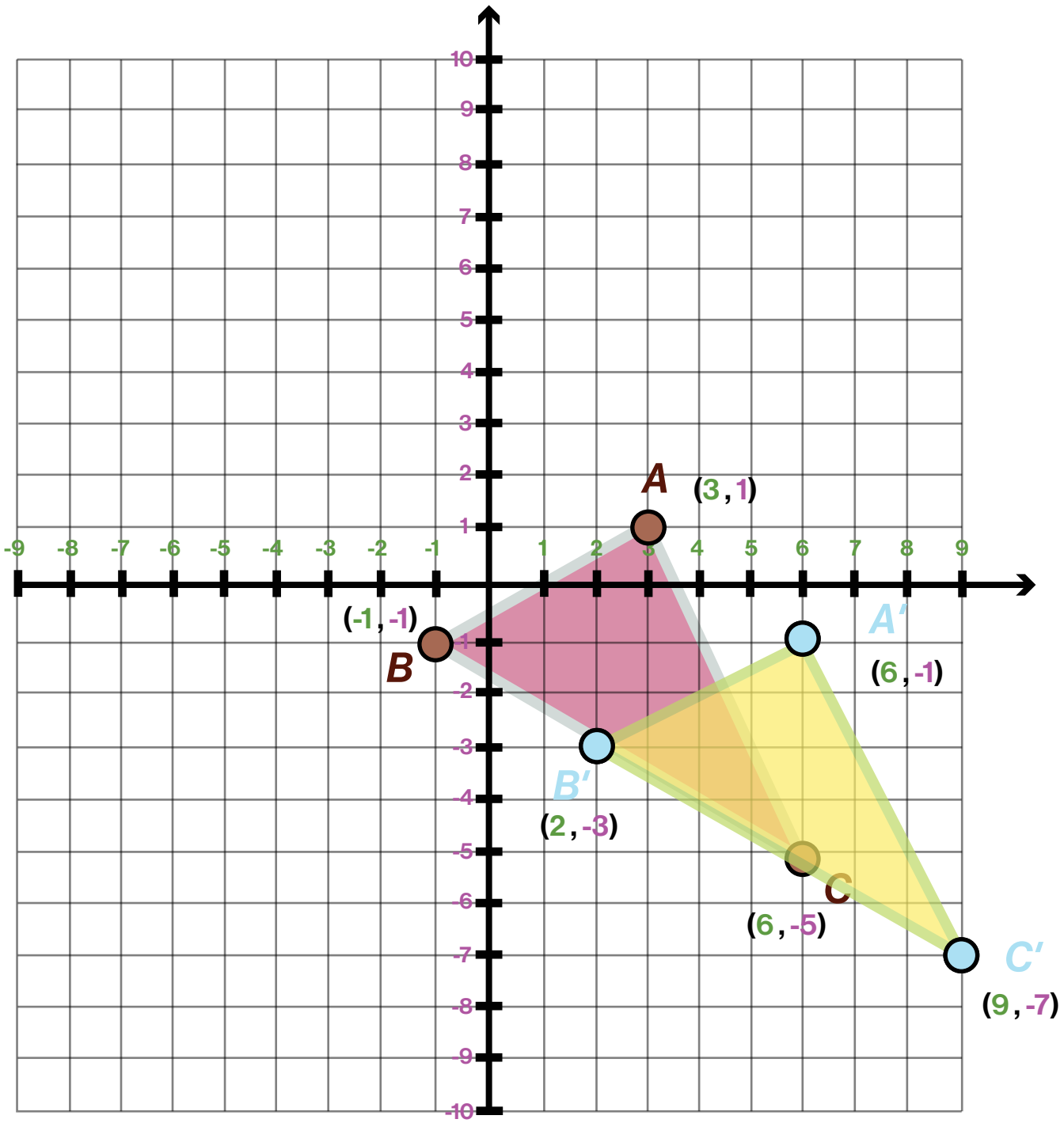
Transformation : Dilation

Transformations and Symmetries Practice

Question 2

Perform the translation

$(x, y) \longrightarrow (x + 3, y - 2)$

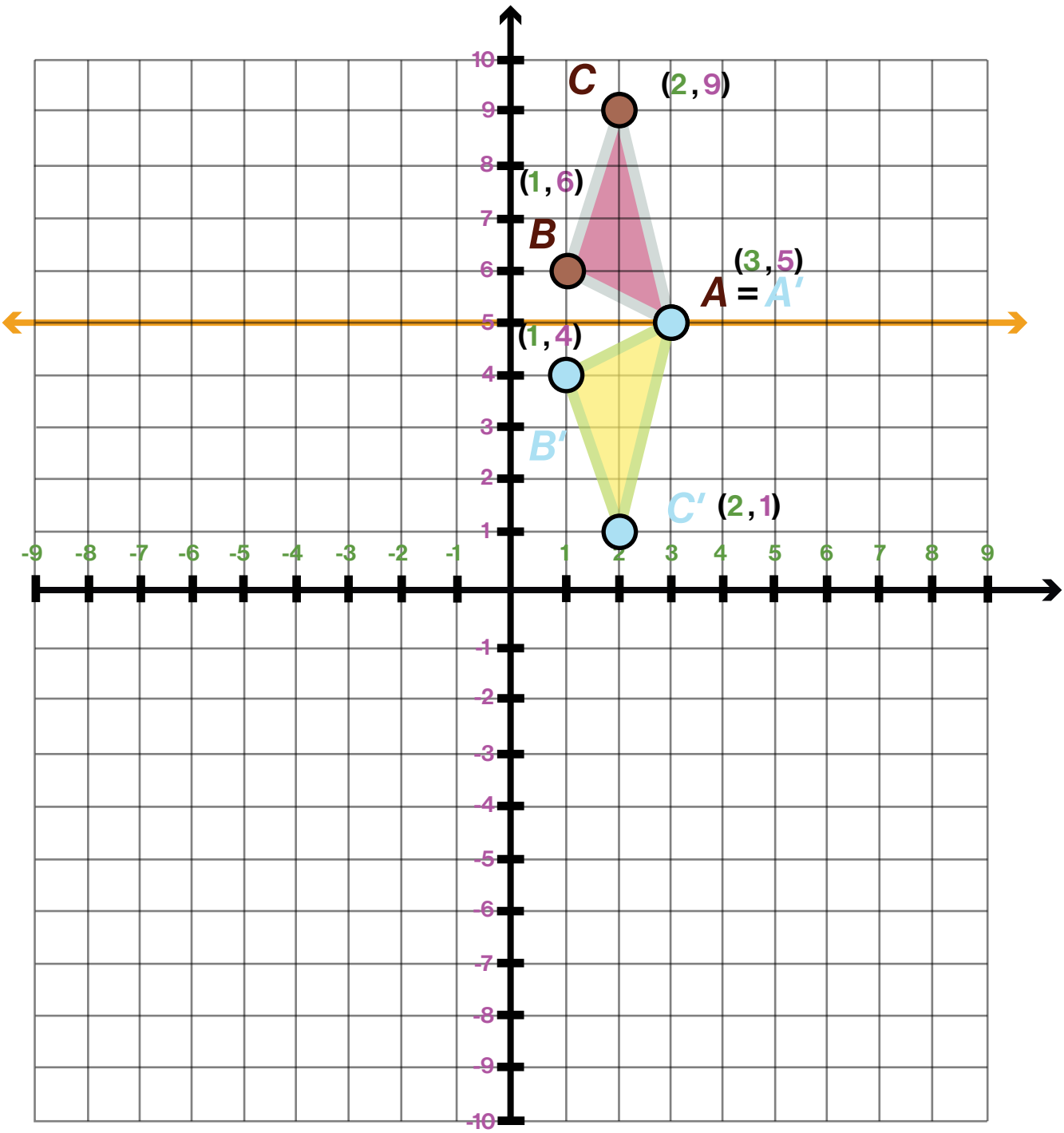


Transformations and Symmetries Practice

Question 3

Perform the reflection

Line of Reflection : y = 5

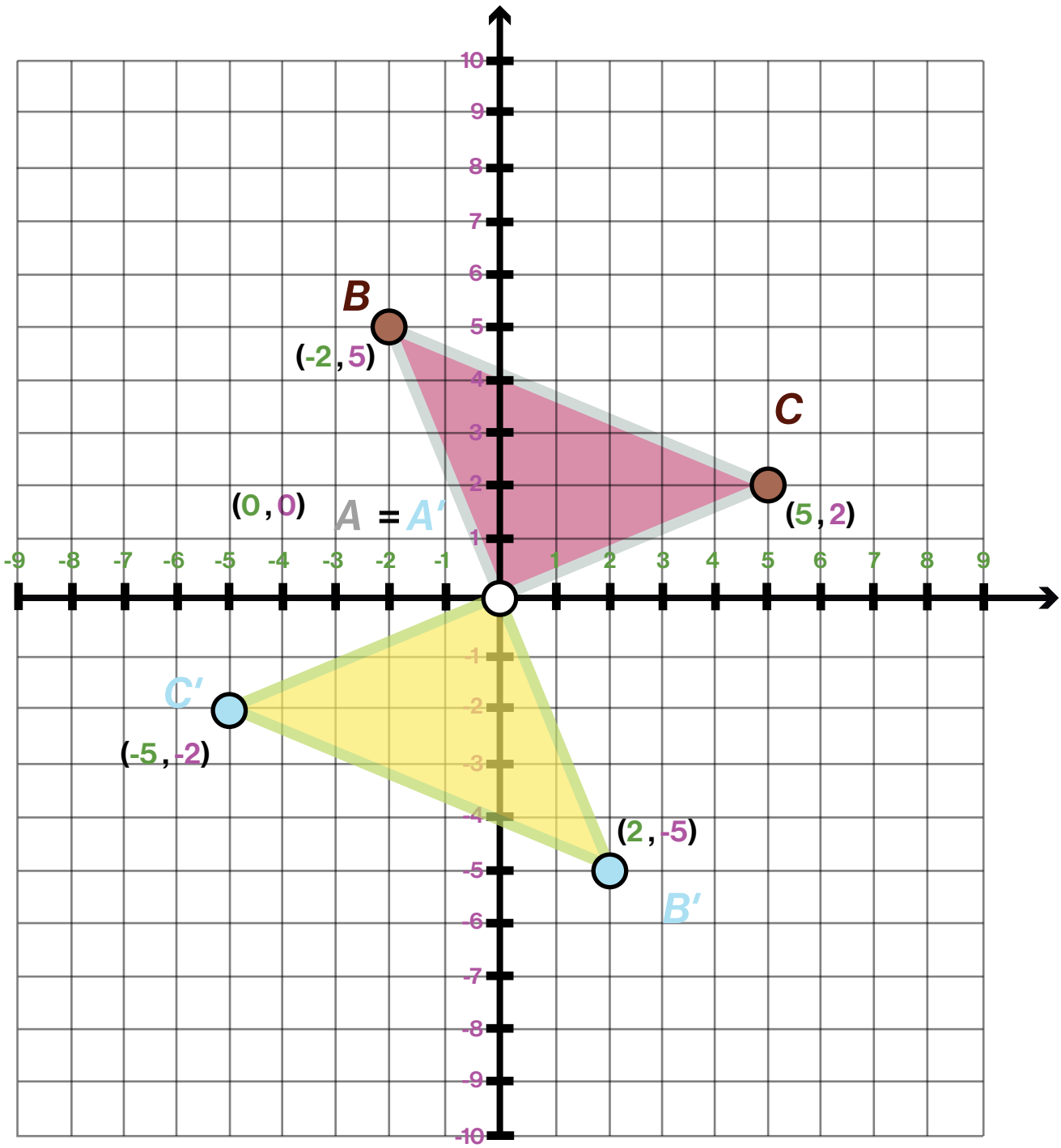


Transformations and Symmetries Practice

Question 4

Rotate the figure 180° about the center of rotation

Center of Rotation: (0 , 0)



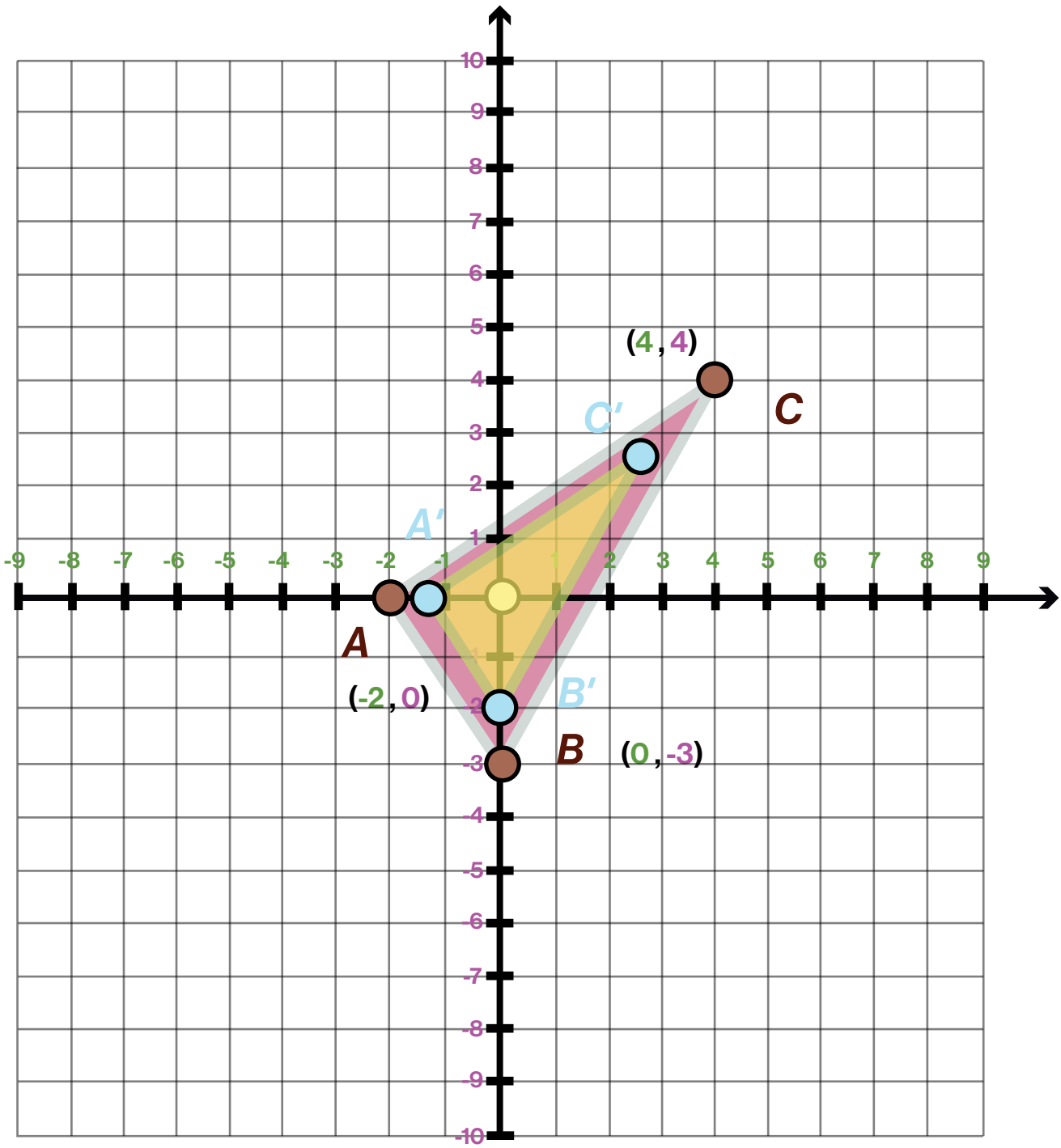
Transformations and Symmetries Practice

Question 5

Perform the dilation

Center of Dilation : (0 , 0)

Scale Factor : 2 / 3



$A' = (2/3 \cdot -2 \ , \ 2/3 \cdot 0) = (-4/3 \ , \ 0)$

$B' = (2/3 \cdot 0 \ , \ 2/3 \cdot -3) = (0 \ , \ -2)$

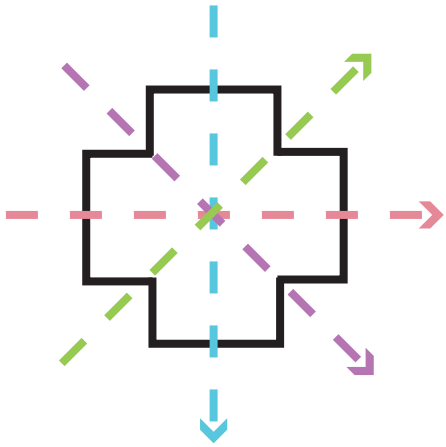
$C' = (2/3 \cdot 4 \ , \ 2/3 \cdot 4) = (8/3 \ , \ 8/3)$

Transformations and Symmetries Practice

Question 6

Draw the lines of symmetry for the figure

4 lines of symmetry



Question 7

Determine if the figure has rotational symmetry

Yes