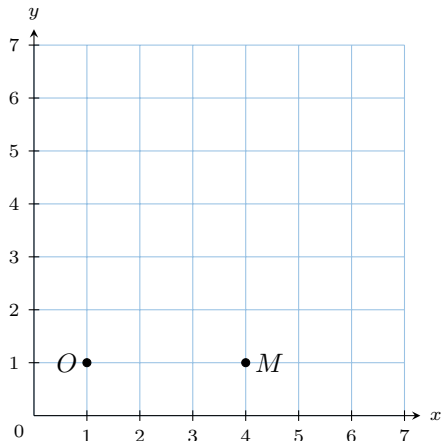


ROTATION

A WHAT IS A ROTATION?

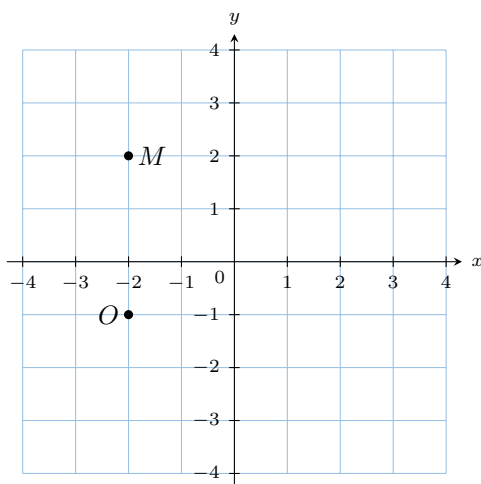
A.1 FINDING THE IMAGE OF A POINT UNDER A 90° ROTATION

Ex 1: Find the coordinates of the image of point M under a rotation of 90° counterclockwise about center O .



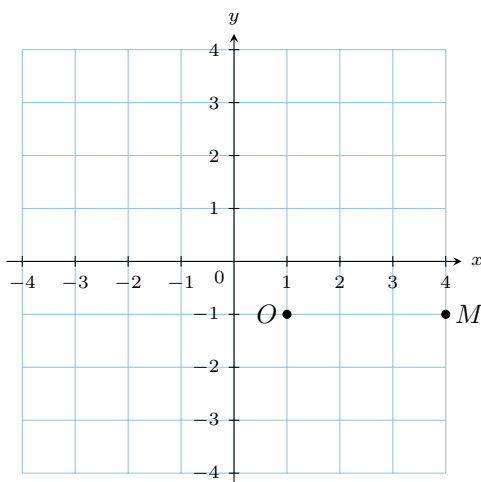
$M'(\text{ }, \text{ })$

Ex 2: Find the coordinates of the image of point M under a rotation of 90° clockwise about center O .



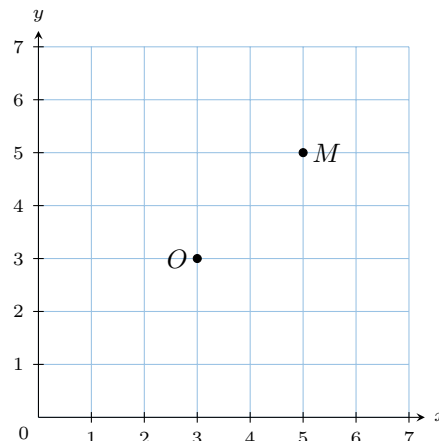
$M'(\text{ }, \text{ })$

Ex 3: Find the coordinates of the image of point M under a rotation of 90° counterclockwise about center O .



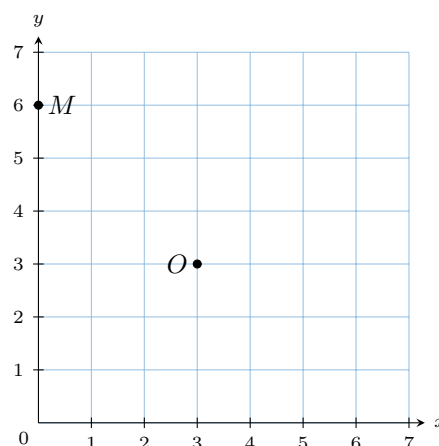
$M'(\text{ }, \text{ })$

Ex 4: Find the coordinates of the image of point M under a rotation of 90° counterclockwise about center O .



$M'(\text{ }, \text{ })$

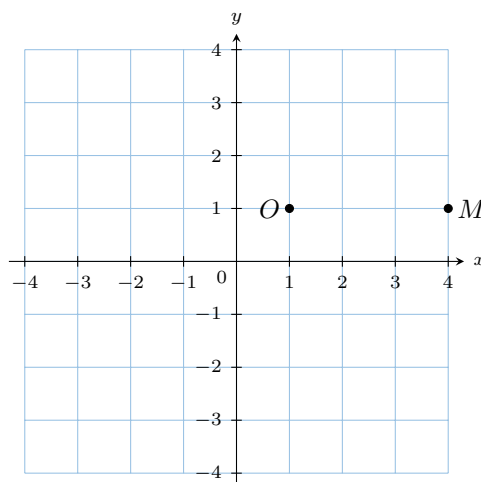
Ex 5: Find the coordinates of the image of point M under a rotation of 90° clockwise about center O .



$M'(\text{ }, \text{ })$

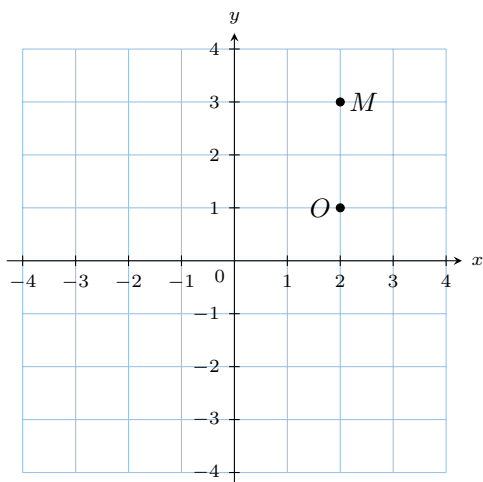
A.2 FINDING THE IMAGE OF A POINT UNDER A 180° ROTATION

Ex 6: Find the coordinates of the image of point M under a rotation of 180° about center O .



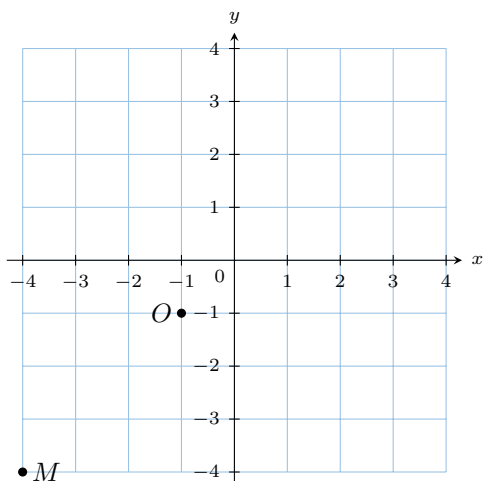
$M'(\square, \square)$

Ex 7: Find the coordinates of the image of point M under a rotation of 180° about center O .



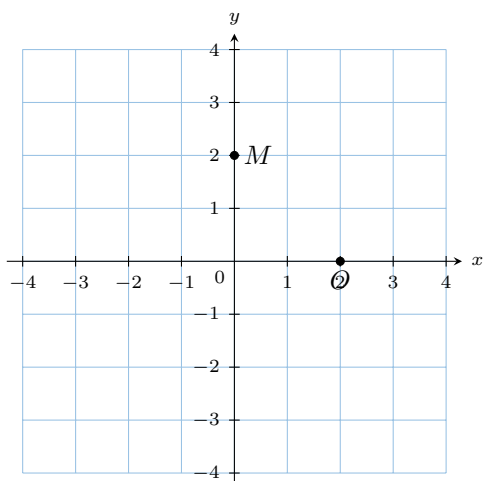
$M'(\square, \square)$

Ex 8: Find the coordinates of the image of point M under a rotation of 180° about center O .



$M'(\square, \square)$

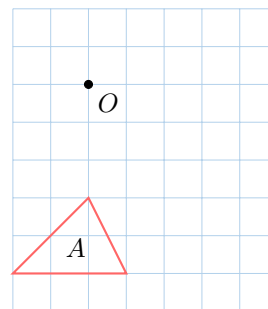
Ex 9: Find the coordinates of the image of point M under a rotation of 180° about center O .



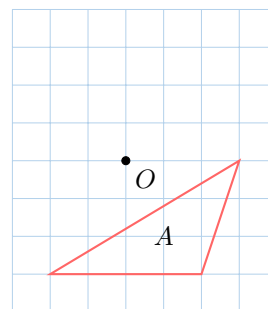
$M'(\square, \square)$

A.3 DRAWING IMAGES OF FIGURES

Ex 10: Draw the figure A' , the image of figure A under a rotation of 90° counterclockwise about center O .



Ex 11: Draw the figure A' , the image of figure A under a rotation of 90° counterclockwise about center O .



Ex 12: Draw the figure A' , the image of figure A under a rotation of 90° clockwise about center O .

