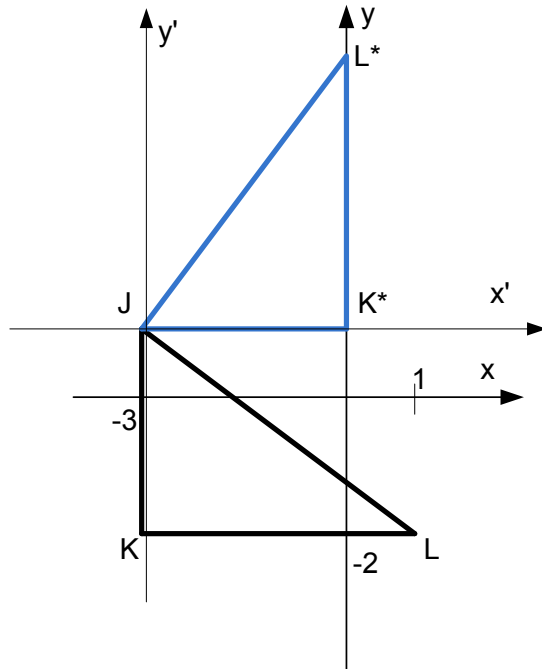


Triangle JKL has vertices J (-3, 1), K (-3, -2), and L (1, -2). Rotate $\triangle JKL$ 90° counterclockwise about the vertex J and write the coordinates of point K after rotation.



Solution:

Move the origin to the point J(-3,1), then the coordinates of the point K (-3,-2) to be

$$x_{K'} = x_K - x_J = -3 + 3 = 0$$

$$y_{K'} = y_K - y_J = -2 - 1 = -3$$

$$K'(0, -3)$$

Rotate the triangle counterclockwise around the new origin

$$x_{K''} = -y_{K'} = 3$$

$$y_{K''} = x_{K'} = 0$$

Move the origin to its original location

$$x_{K^*} = x_{K''} + x_J = 3 - 3 = 0$$

$$y_{K^*} = y_{K''} + y_J = 0 + 1 = 1$$

Answer: K*(0,1)