

The matrix of rotation is the following:

$$R = \begin{pmatrix} \cos \alpha & \sin \alpha \\ -\sin \alpha & \cos \alpha \end{pmatrix} = \begin{pmatrix} \cos 270^\circ & \sin 270^\circ \\ -\sin 270^\circ & \cos 270^\circ \end{pmatrix} = \begin{pmatrix} 0 & -1 \\ 1 & 0 \end{pmatrix}.$$

The image is:

$$RA = \begin{pmatrix} 0 & -1 \\ 1 & 0 \end{pmatrix} * \begin{pmatrix} 0 & 1 & -4 \\ 0 & 8 & 9 \end{pmatrix} = \begin{pmatrix} 0 & -8 & -9 \\ 0 & 1 & -4 \end{pmatrix}.$$