$$\textcircled{a} \begin{bmatrix} 1 & 0 & x \\ 0 & p & y \\ 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} \cos\theta & -\sin\theta & 0 \\ \sin\theta & \cos\theta & 0 \\ 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} 1 & 0 & -x \\ 0 & 1 & -y \\ 0 & 0 & 1 \end{bmatrix}$$

$$= \begin{bmatrix} 1 & 0 & x \\ 0 & 1 & y \\ 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} \cos\theta & -\sin\theta & (y\sin\theta - x\cos\theta) \\ \sin\theta & \cos\theta & -(x\sin\theta + y\cos\theta) \\ 0 & 0 & 1 \end{bmatrix}$$

Rotation w.r.t (x,y)

$$= \begin{bmatrix} \cos\theta & -\sin\theta & x(1-\cos\theta) + y\sin\theta \\ \sin\theta & \cos\theta & -x\sin\theta + y(1-\cos\theta) \\ 0 & 0 & 1 \end{bmatrix}$$

m = -x(cosØ-1)+y(sinØ)
n = -y(cosØ-1)-x(sinØ)

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since, here, x = y = 100,

m = -100(cosØ-1)+100(sinØ)
n = -100(cosØ-1)-100(sinØ)

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