

$$(21) \quad xy = -8$$

$$\cot 2\theta = \frac{A-C}{B} = 0$$

$$2\theta = \frac{\pi}{2}$$
$$\theta = \frac{\pi}{4}$$

$$x = x' \cos \theta - y' \sin \theta$$
$$x = \frac{\sqrt{2}}{2} x' - \frac{\sqrt{2}}{2} y'$$

$$y = x' \sin \theta + y' \cos \theta$$
$$y = \frac{\sqrt{2}}{2} x' + \frac{\sqrt{2}}{2} y'$$

$$x = \frac{\sqrt{2}}{2} (x' - y')$$

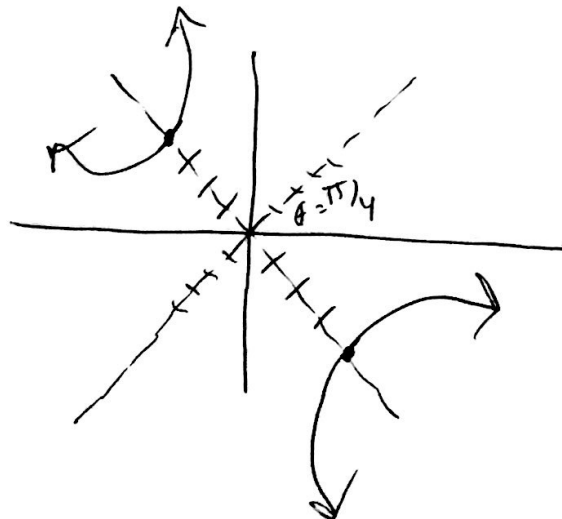
$$y = \frac{\sqrt{2}}{2} (x' + y')$$

$$\frac{1}{2} (x' - y')(x' + y') = -8$$

$$(x' - y')(x' + y') = -16$$

$$\frac{x'^2}{-16} - \frac{y'^2}{-16} = \frac{-16}{-16}$$

$$\frac{(y')^2}{16} - \frac{(x')^2}{16} = 1$$



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