

$$x = r \cos \theta$$

$$x = -8 \cos \frac{7\pi}{4}$$

DRILL

$$y = r \sin \theta$$

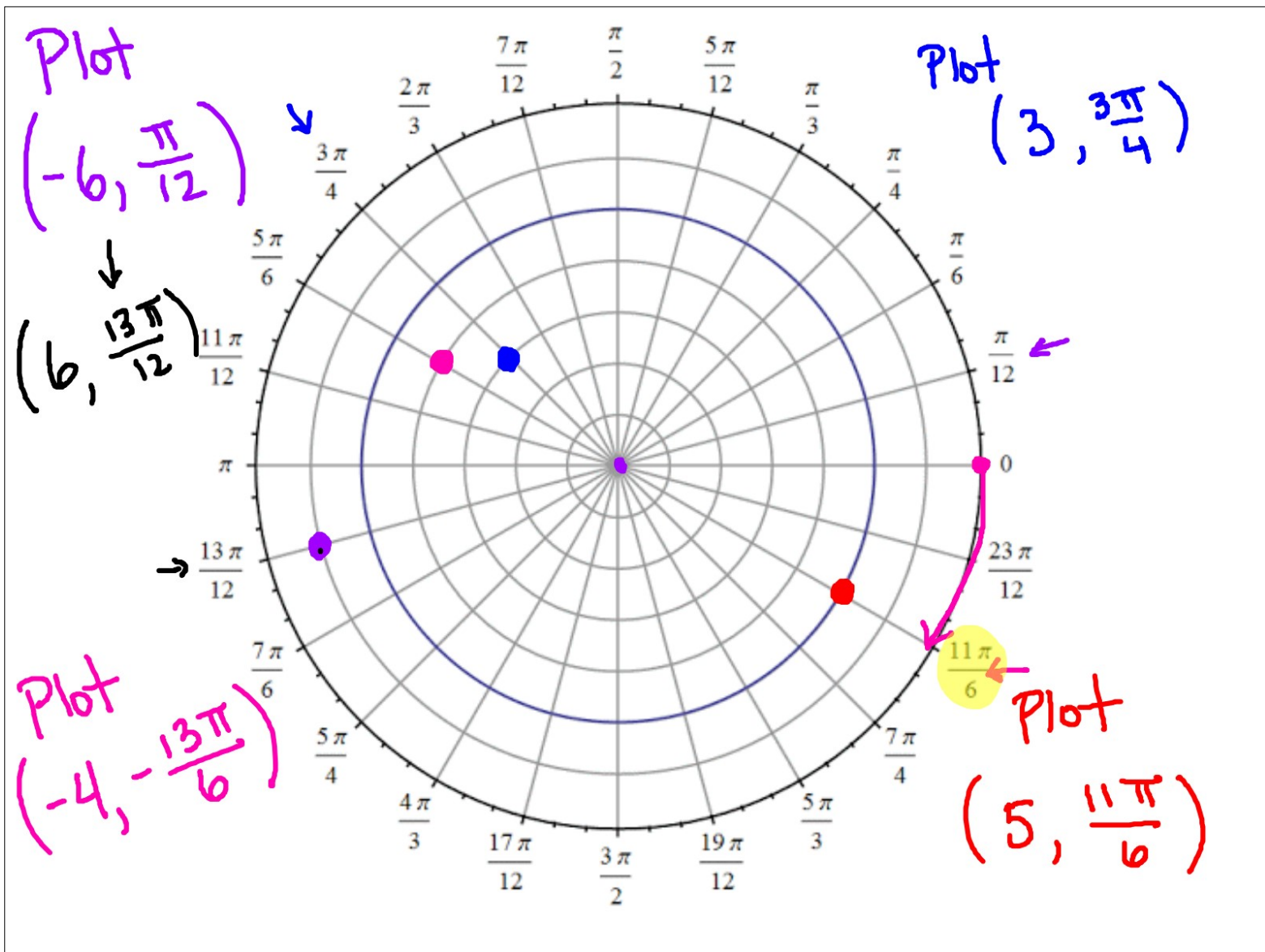
$$y = -8 \sin \left(\frac{7\pi}{4} \right)$$

① Switch $(-8, \frac{7\pi}{4})$ into rectangular form.

$$\left(-8 \left(\frac{\sqrt{2}}{2} \right), -8 \left(-\frac{\sqrt{2}}{2} \right) \right) \rightarrow (-4\sqrt{2}, 4\sqrt{2})$$

② Find three other points in the same location as $(-8, \frac{7\pi}{4})$.

$$\left(-8, \frac{15\pi}{4} \right), \left(-8, -\frac{\pi}{4} \right), \left(8, \frac{3\pi}{4} \right), \left(8, \frac{11\pi}{4} \right)$$



Plot $(-6, \frac{\pi}{12})$

$(6, \frac{13\pi}{12})$

Plot $(-4, -\frac{13\pi}{6})$

Plot $(3, \frac{3\pi}{4})$

Plot $(5, \frac{11\pi}{6})$

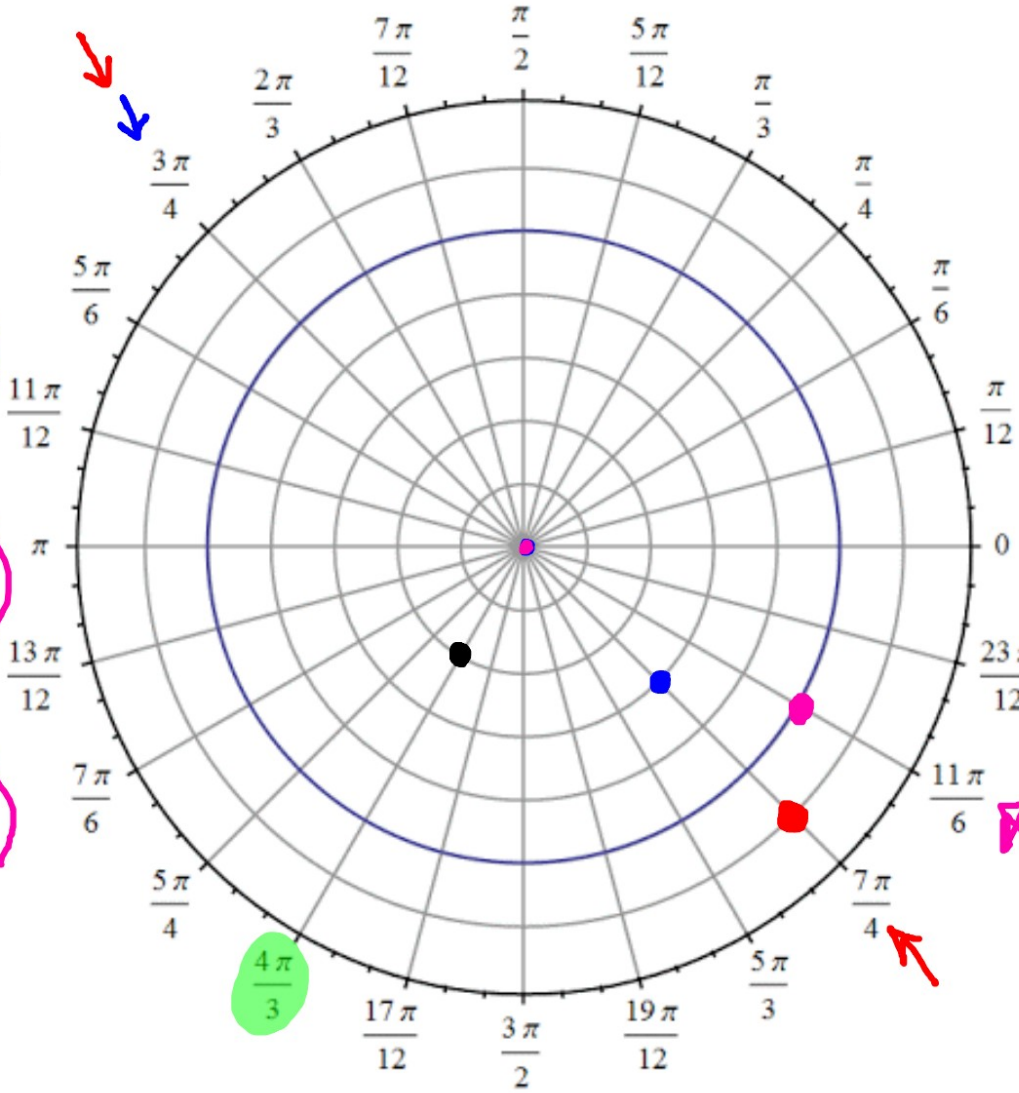
Graph

$(\underline{2}, \frac{4\pi}{3})$

$(-3, \frac{3\pi}{4})$

$(5, \frac{23\pi}{6})$

$(5, \frac{11\pi}{6})$

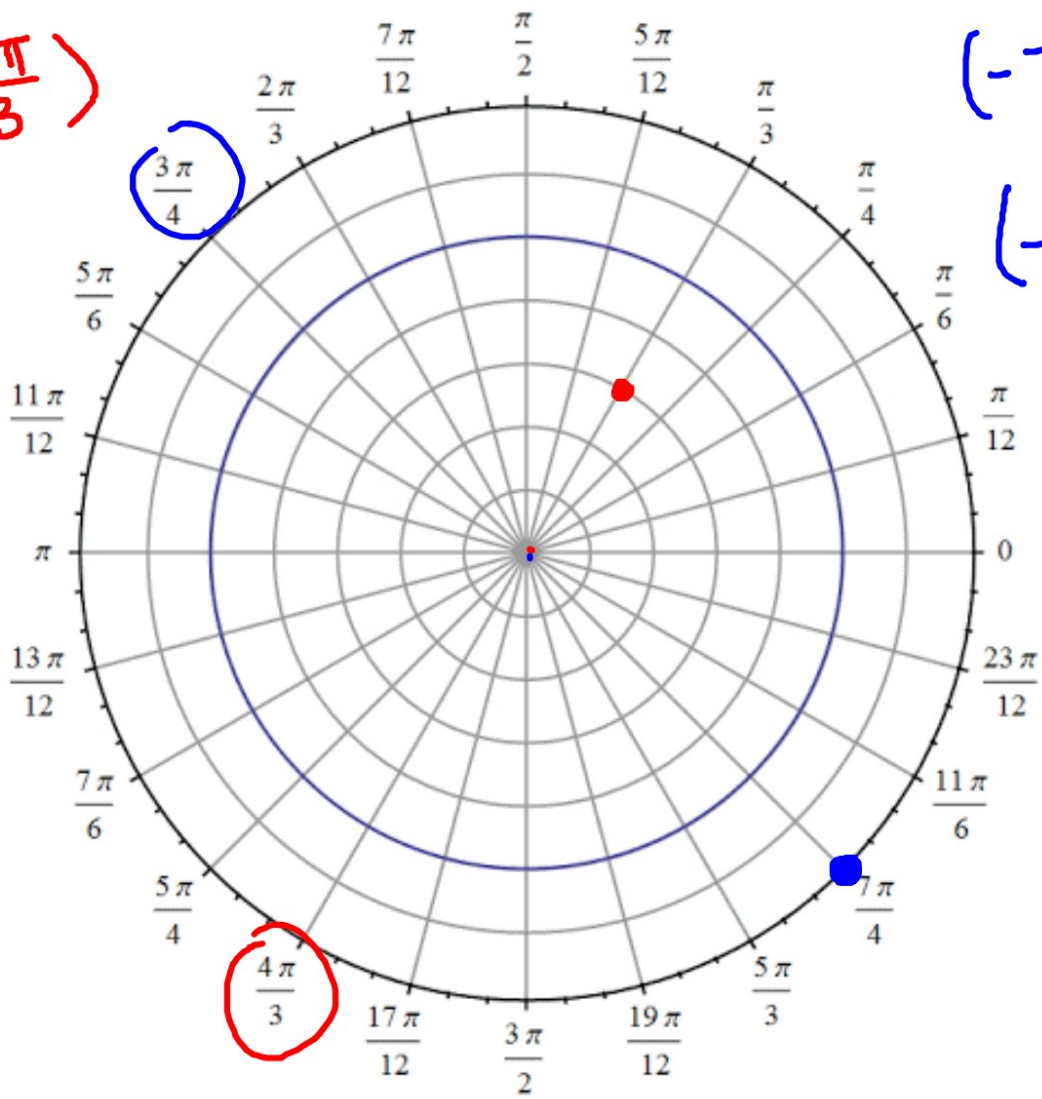


$\frac{23\pi}{6} - \frac{2\pi}{1}$

$\frac{23\pi}{6} - \frac{12\pi}{6}$

$\uparrow + \frac{11\pi}{6}$
 $\downarrow - \frac{5\pi}{4}$
 (r, θ)
 $(-b, -\frac{5\pi}{4})$
 $(b, \frac{7\pi}{4})$

$$\left(-3, \frac{4\pi}{3}\right)$$



$$\left(-7, -\frac{5\pi}{4}\right)$$

$$\left(-7, \frac{3\pi}{4}\right)$$