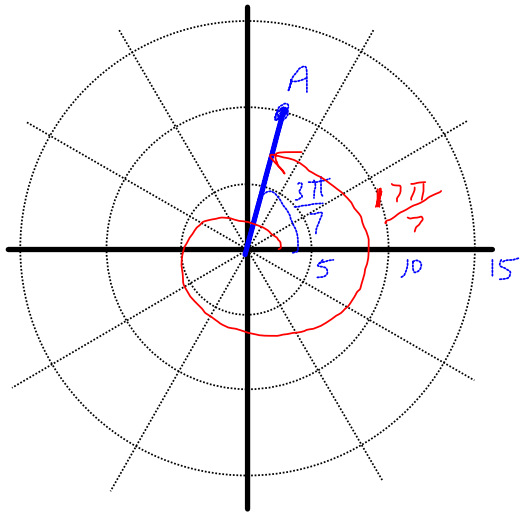
1) The polar coordinate for a point are $\overbrace{\left(10, \frac{3\pi}{7}\right)}^{A}$. Give another polar representations of this point that meet the following conditions.

A) $r > 0$ and $\theta > 0$

The given point is graphed to the right. since we want annother point with theta and r greater than zero, just at 2pi to the angle (one more revolution.

$$\left(10, \frac{3\pi}{7} + 2\pi\right)$$

$$= \left(10, \frac{17\pi}{7}\right)$$



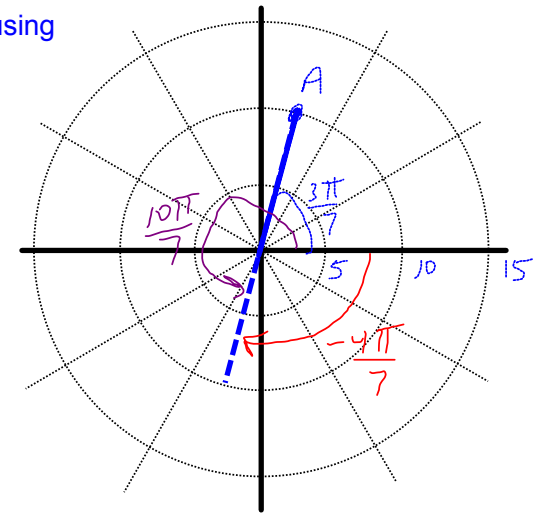
B) $r < 0$

many possible solution, first consider using a negative angle.

$$\left(-10, -\frac{4\pi}{7}\right)$$

Or add pi to the origianal angle.

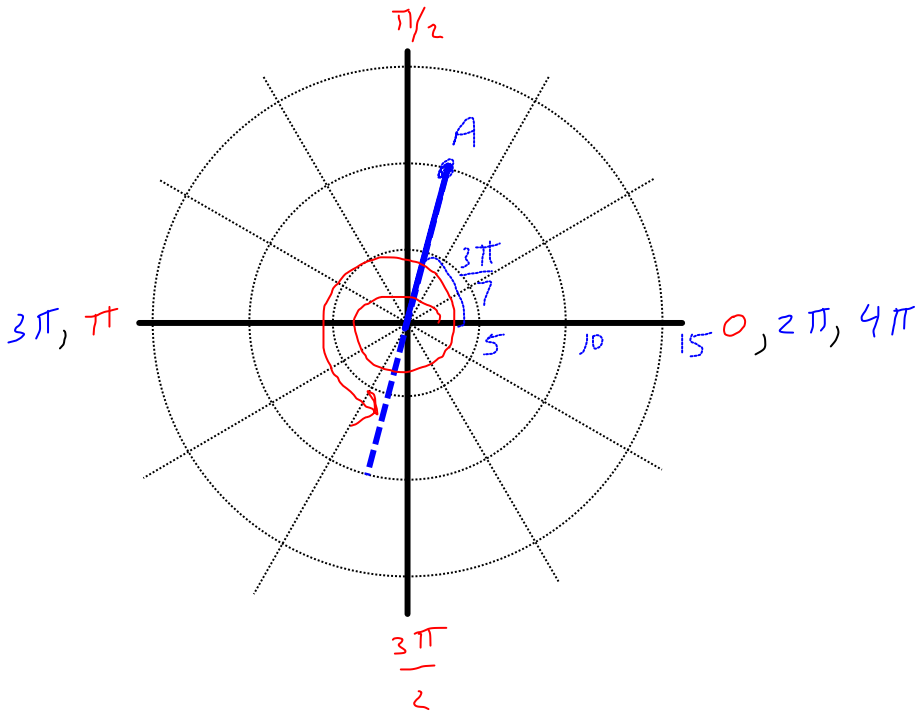
$$\left(-10, \frac{10\pi}{7}\right)$$



C) $3\pi < \theta < 4\pi$

$\left(-2, \frac{3\pi}{7} + 3\pi\right)$

$= \left(-2, \frac{24\pi}{7}\right)$



D) $-\pi < \theta < 0$

This was actually done in part B.

$\left(-10, -\frac{4\pi}{7}\right)$