You know 2 + 2 comes to the same as 2 x 2. Now find a set of three different whole numbers whose sum is equal to their total when multiplied.

What is the smallest whole number that is equal to seven times the sum of its digits?

(r, θ)

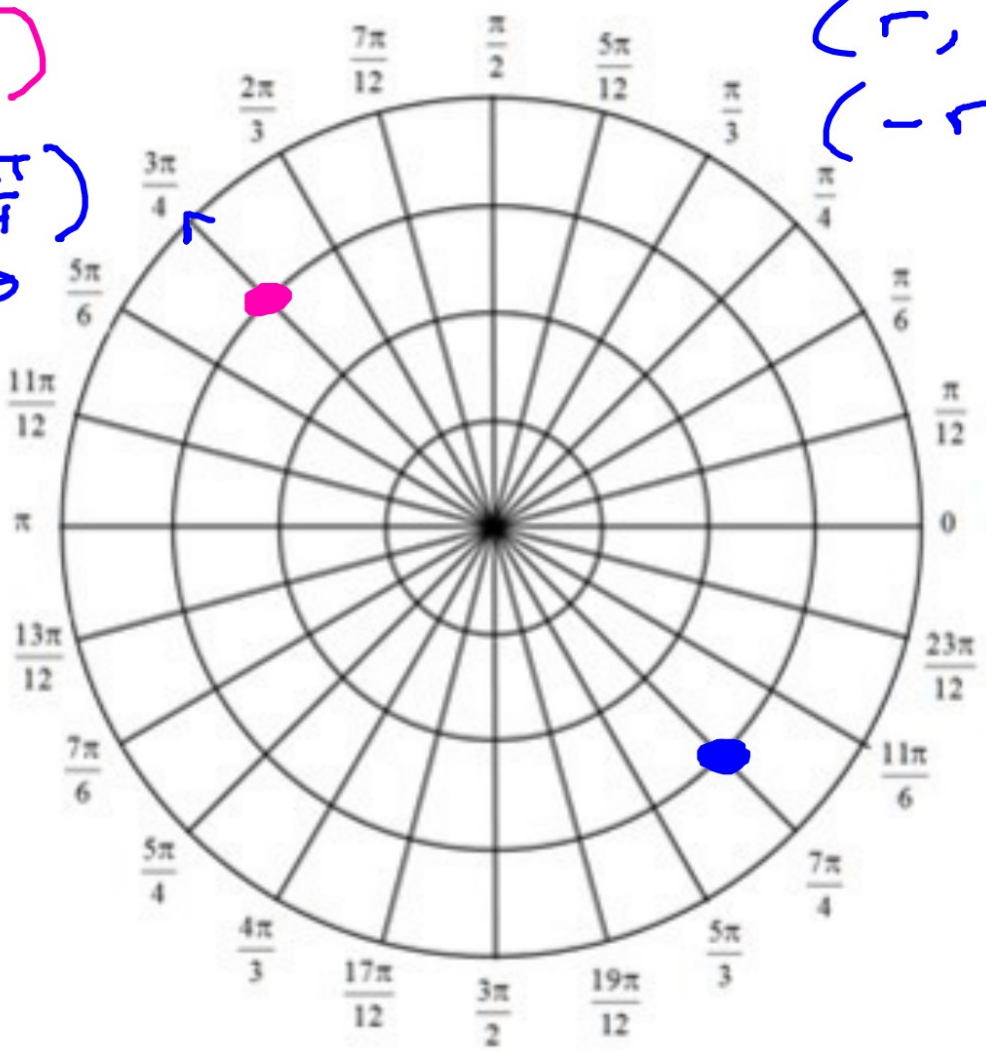
$\left(3, \frac{3\pi}{4}\right)$

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

$-r, \theta$

(r, θ)

$(-r, \theta + \pi)$



Find three coordinates in the same location as $\left(-2, \frac{\pi}{6}\right)$ where $-2\pi \leq \theta < 2\pi$

$\left(-2, \frac{-11\pi}{6}\right)$ $\quad \frac{\pi}{6} - \frac{12\pi}{6}$

$\left(2, \frac{7\pi}{6}\right)$ $\quad \frac{\pi}{6} + \frac{6\pi}{6} =$

$\left(2, \frac{-5\pi}{6}\right)$ $\quad \frac{\pi}{6} - \frac{6\pi}{6} =$

oordinate Conversion

he polar coordinates (r, θ) are related to the rectangular coordinates (x, y) follows.

Polar-to-Rectangular	*Rectangular-to-Polar*
$x = r\cos\theta$	$\tan\theta = \frac{y}{x}$
$y = r\sin\theta$	$r^2 = x^2 + y^2$

Change $P = (4, \frac{\pi}{2}) \rightarrow (0,4)$ into rectangular form.

$x = 4\cos\frac{\pi}{2} = 4(0) = 0$

$y = 4\sin\frac{\pi}{2} = 4(1) = 4$

$(\overset{x}{-3}, \overset{y}{4})$ convert into Polar

(Round to two decimals if needed)

$r^2 = x^2 + y^2$

$r^2 = (-3)^2 + (4)^2$

$r^2 = 9 + 16$

$\sqrt{r^2} = \sqrt{25}$

$r = 5$

$\tan\theta = \frac{y}{x}$

$\tan\theta = \frac{4}{-3}$

$\theta = \tan^{-1}\left(-\frac{4}{3}\right)$

Degrees ≈ -53.13

$+ \quad 360$

306.87

$(r, \theta) \rightarrow (5, -53.13^\circ)$