TRIG EQUATION

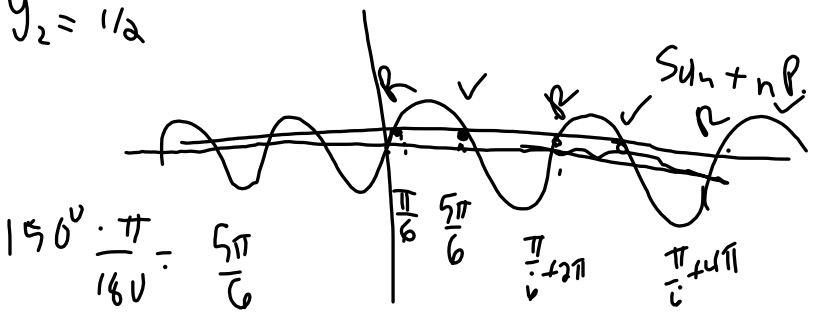
Ex $\sin x = \frac{1}{2}$

$x = \sin^{-1}\left(\frac{1}{2}\right) = .523\ldots = \frac{\pi}{6}$

$\left(\theta = 30^\circ\right)$

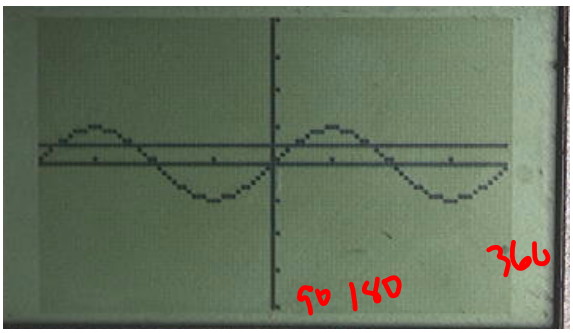
$y_1 = \sin x$

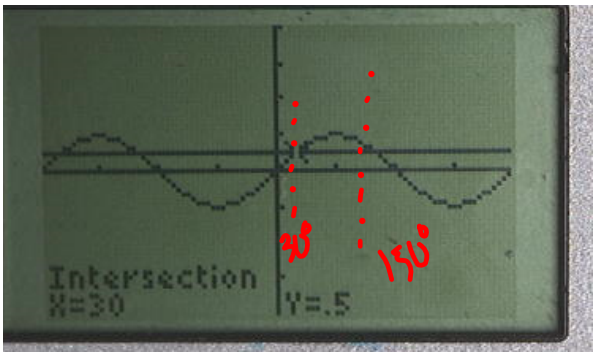
$y_2 = \frac{1}{2}$

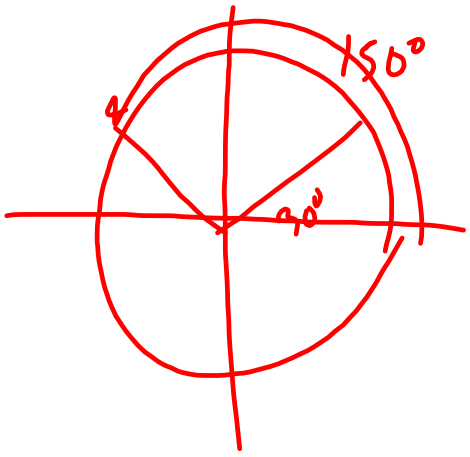


$150^\circ \cdot \frac{\pi}{180} = \frac{5\pi}{6}$

$\frac{5\pi}{6} + 2\pi \quad \frac{5\pi}{6} + 4\pi$

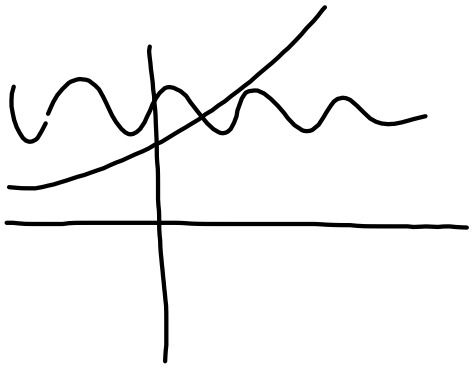




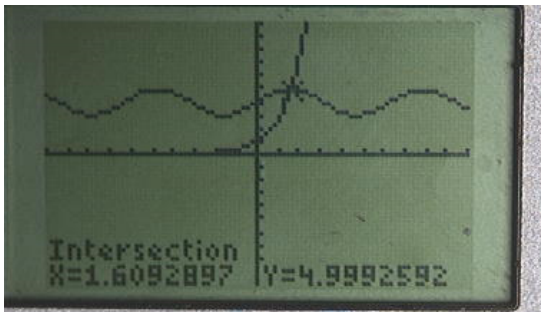


$x = 30^\circ + 360^\circ n$

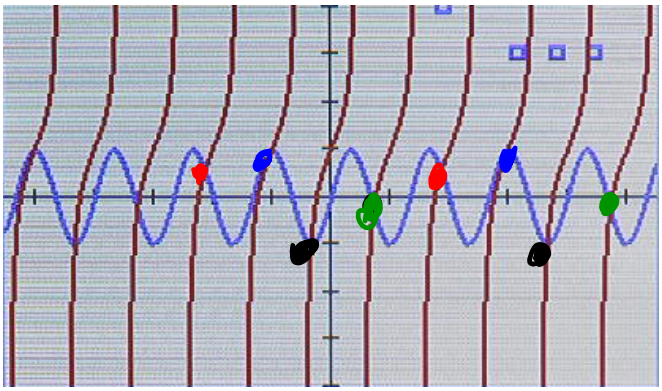
$x = 150^\circ + 360^\circ n$



$e^x = \sin x + 4$



$\sin(3x) = \tan(2x) + 1$



-.55 5.73

1.12... 4.71...

2.93...

Period = 5.73
+ .55
6.28
= 2π

Finding solutions in an interval for a trigonometric equation in factored form

Find all solutions of the equation in the interval $[0, 2\pi)$.

$$(2\cos x - \sqrt{2})(2\sin x + \sqrt{2}) = 0$$

Write your answer in radians in terms of π.
If there is more than one solution, separate them with commas.

change calc to degrees

change window xmin=0 xmax:360

y1=( )( )

y2=0

calc 5 intersect

change back to radians