cos → x
sin → y

Finding Angles With the Calculator IV **Name**_____

Find the general solution for each of the three trig equations below. Give your answers **in radians**

180 - calc
π - calc

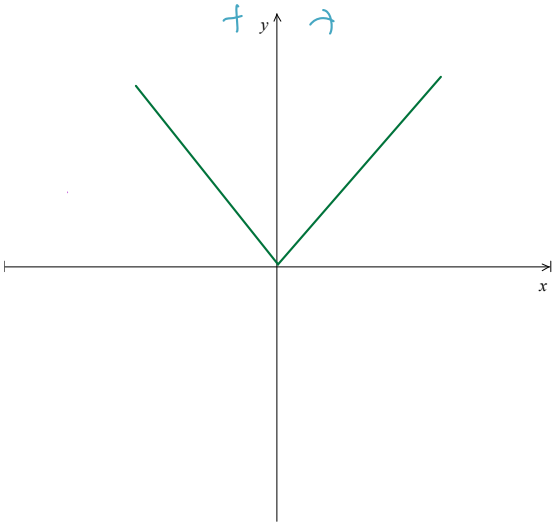
1) $\sin\theta = 0.7547095802$

$\sin^{-1}(0.7547095802) = 0.8552$

I
49° = 49°
180 - 49° = 131°

I
$\theta = 0.8552 \pm 2\pi n$
$2.2864 \pm 2\pi n$
II

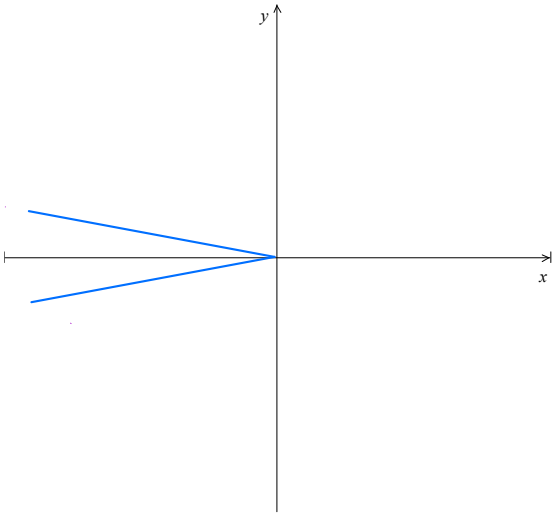
π - 0.8552



2) $\cos\theta = -0.999390827$

$\cos^{-1}(-0.999390827) = 3.1069$

II
$\theta = \pm 3.1069 \pm 2\pi n$
III



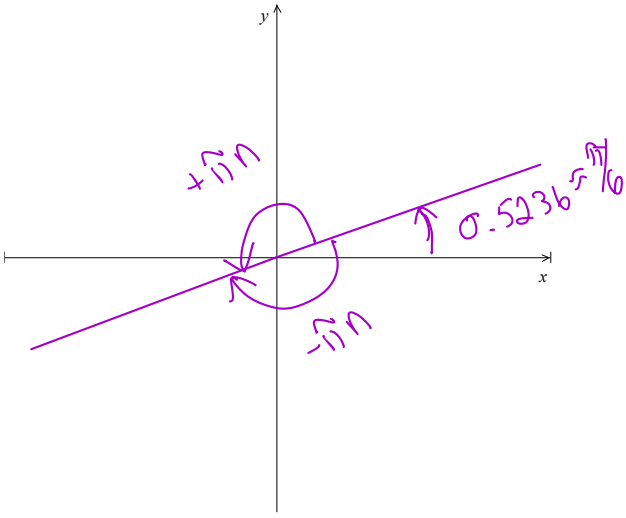
1/√3

3) $\tan\theta = 0.5773502692$

$\tan^{-1}(0.5773502692) = 0.5236$

π/6

$\theta = 0.5236 \pm \pi n$



Find two negative and two positive solutions to the given trig expression and sketch the two terminal sides on the axes below. Start with angles between 0 and 2π radians

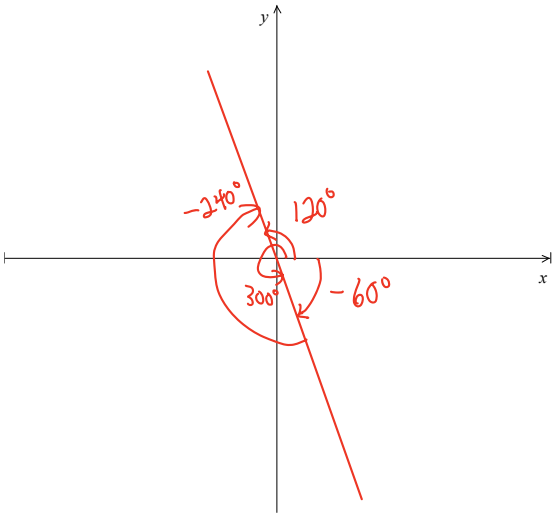
4) $\tan\theta = -1.73205080757$

$-\sqrt{3}$

$\tan^{-1}(-\sqrt{3}) = -60°$

$\theta = -60° \pm 180°n$

two +	two −
120°	−60°
300°	−240°

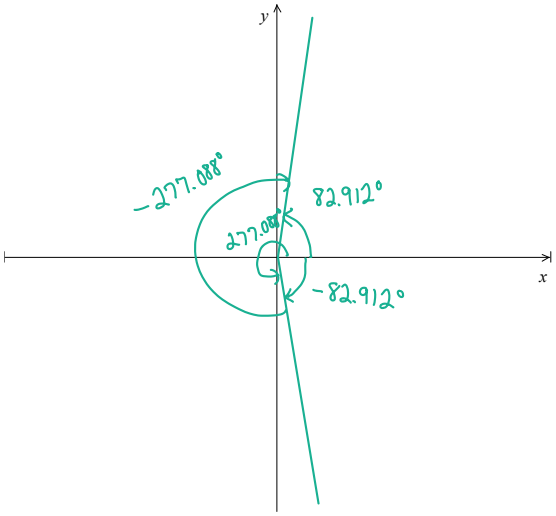


5) $\cos\theta = 0.1234$

$\cos^{-1}(0.1234) = 82.912°$

$\theta = \pm 82.912° \pm 360°n$

two +	two −
82.912°	−82.912°
277.088°	−277.088°



6) $\sin\theta = -0.904210878$

$\sin^{-1}(-0.904210878) = -64.717°$

$\theta = -64.717° \pm 360°n$

$244.717° \pm 360°n$

two +	two −
244.717°	−64.717°
295.283°	−115.283°