DEFINITION: REFERENCE ANGLE IN STANDARD POSITION IS THE POSITIVE ACUTE ANGLE WITH THE X-AXIS.

PreCalc B Name KEY ID: 1

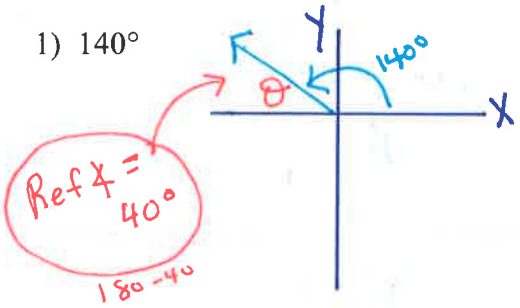
6.0 Trig. Review

STUDY TIPS

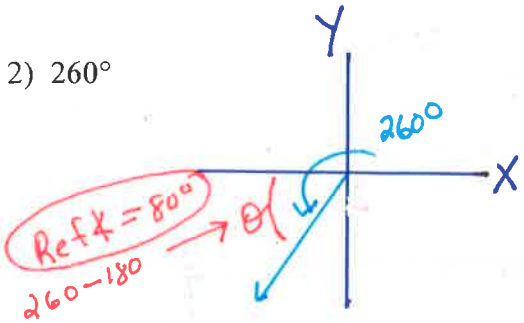
Date

Sketch and clearly label the reference angle.

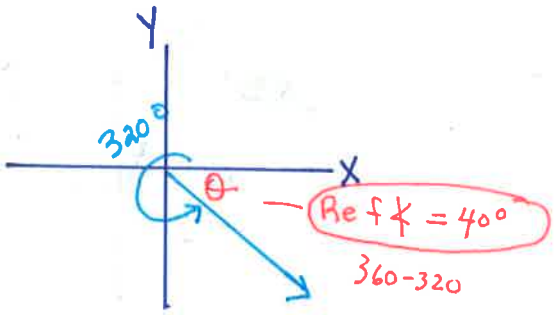
1) 140°



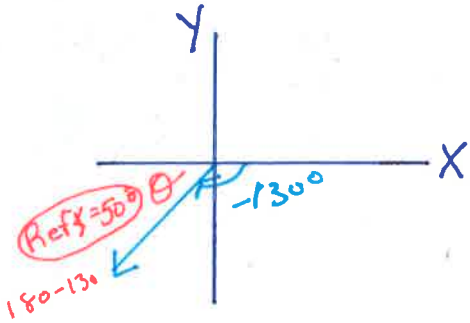
2) 260°



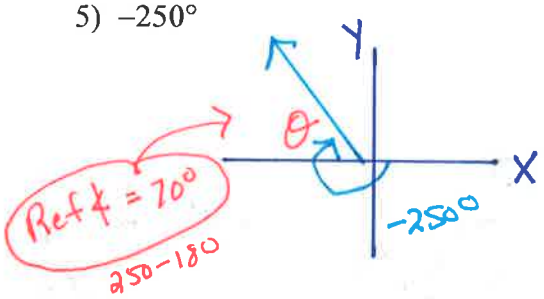
3) 320°



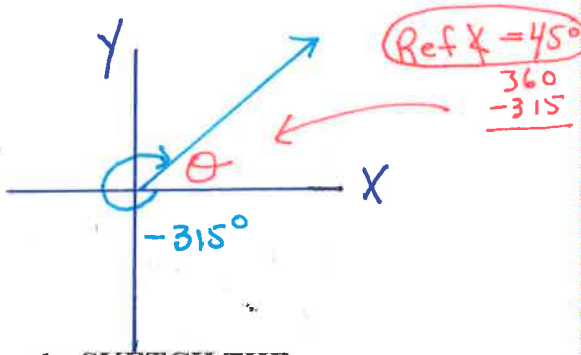
4) −130°



5) −250°

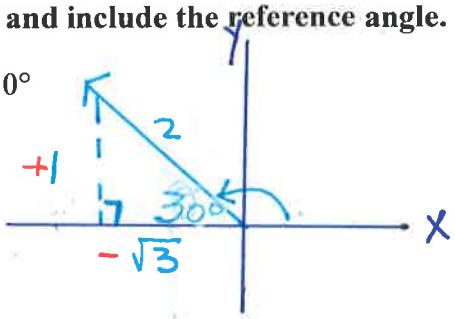


6) −315°



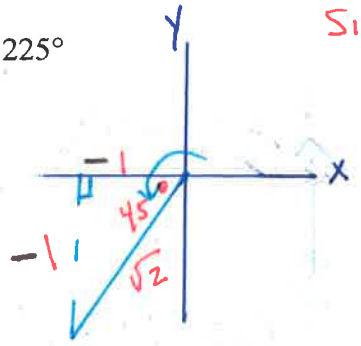
Find the exact value of each trigonometric function. Show work clearly. SKETCH THE GRAPH and include the reference angle.

7) sin 150°



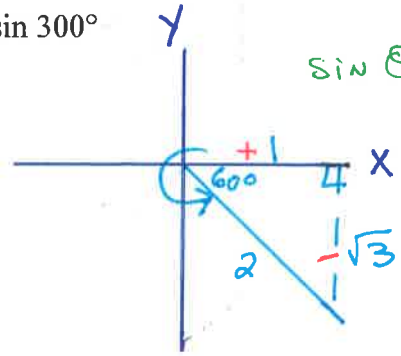
$\sin\theta = \frac{O}{H} = \frac{1}{2}$

8) sin 225°

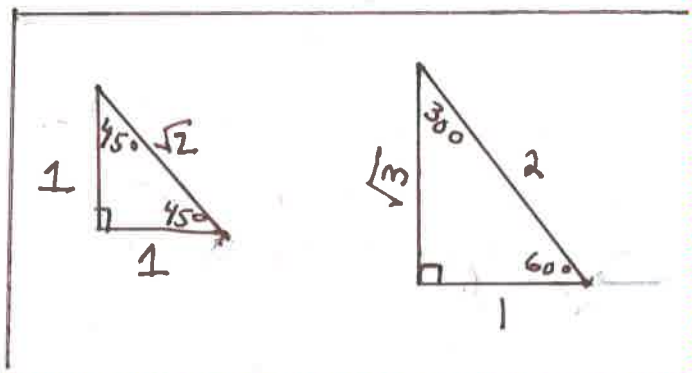


$\sin\theta = \frac{O}{H} = \frac{-1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{-\sqrt{2}}{2}$

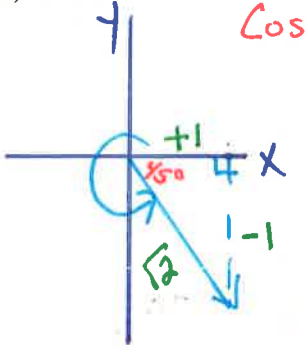
9) sin 300°



$\sin\theta = \frac{O}{H} = \frac{-\sqrt{3}}{2}$



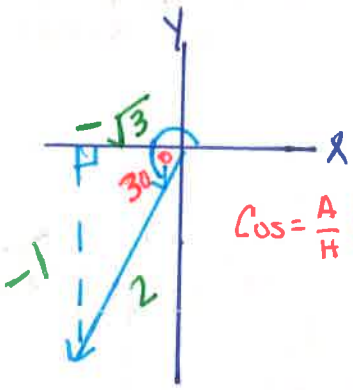
10) cos 315°



$\text{Cos} = \frac{A}{H} = \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

$= \boxed{\frac{\sqrt{2}}{2}}$

11) cos 210°

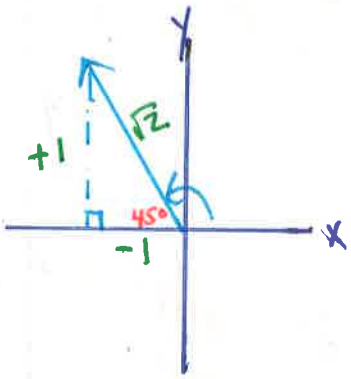


$\text{Cos} = \frac{A}{H} = \boxed{\frac{-\sqrt{3}}{2}}$

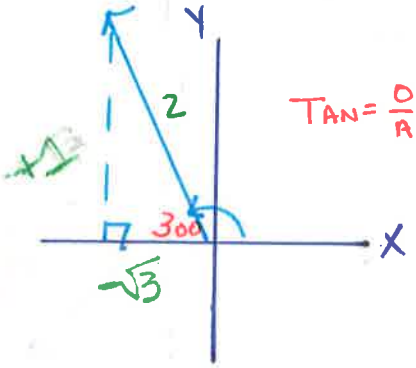
12) cos 135°

$\text{Cos} = \frac{A}{H} = \frac{-1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

$= \boxed{\frac{-\sqrt{2}}{2}}$



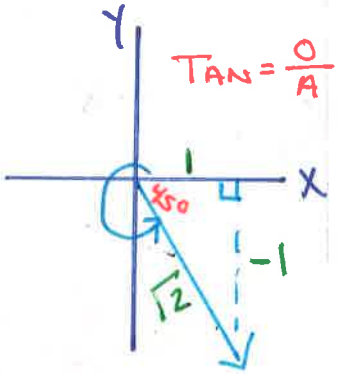
13) tan 150°



$\text{Tan} = \frac{O}{A} = \frac{1}{-\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$

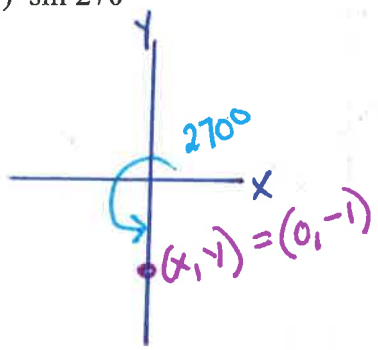
$\boxed{\frac{\sqrt{3}}{-\sqrt{3}}}$

14) tan 315°



$\text{Tan} = \frac{O}{A} = \frac{-1}{1} = \boxed{-1}$

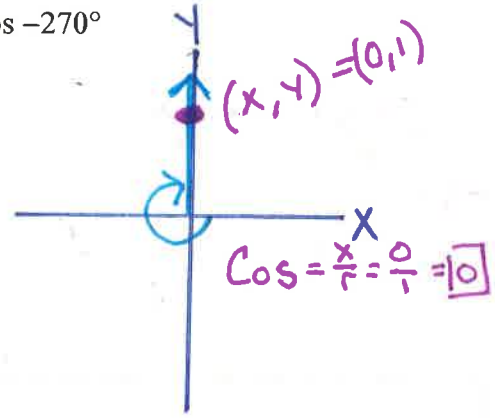
15) sin 270°



$\text{Sin} = \frac{Y}{R} = \frac{-1}{1}$

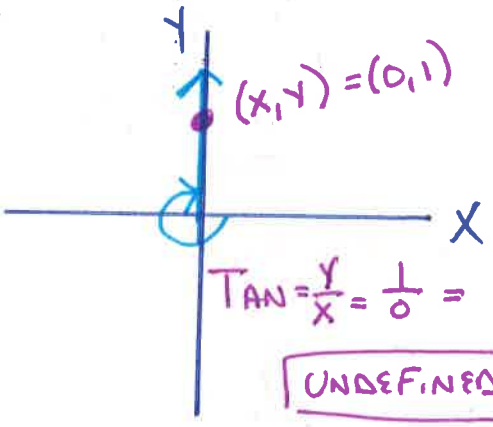
$= \boxed{-1}$

16) cos –270°



$\text{Cos} = \frac{X}{r} = \frac{0}{1} = \boxed{0}$

17) tan –270°



$\text{Tan} = \frac{Y}{X} = \frac{1}{0} =$

UNDEFINED

Remember UNIT CIRCLE

$\text{Sin}\,\theta = Y/R$

$\text{Cos}\,\theta = X/R$ *R is always +1

$\text{Tan}\,\theta = Y/X$