

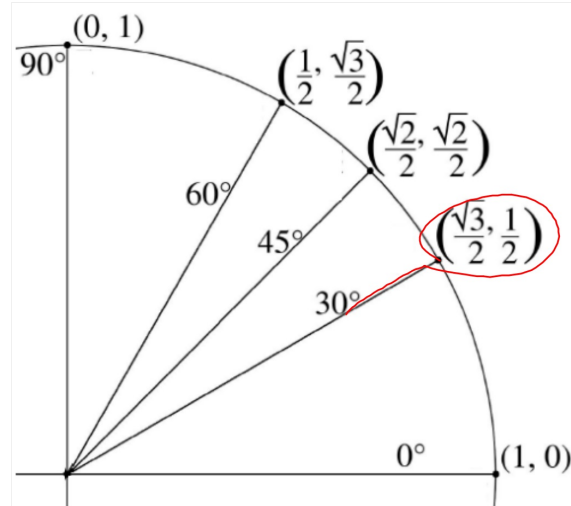
Use the first quadrant of the unit circle to find the exact value of each.

1. $\cos(-1050^\circ) \rightarrow \frac{\sqrt{3}}{2}$
 $= \cos(30^\circ)$

2. $\tan 810^\circ$
 $\tan(90^\circ) = \frac{Y}{X} = \frac{1}{0} = \text{undefined}$

3. $\sin 1500^\circ \rightarrow \sin(60^\circ)$
 $= \frac{\sqrt{3}}{2}$

4. $\tan(-660^\circ)$
 $\tan(60^\circ) = \frac{Y}{X} = \frac{\sqrt{3}}{1} = \sqrt{3}$



5. In which quadrant, or on which axis, does the terminal side of each angle lie?

a) 1652° III
 $\begin{array}{r} -1080 \\ 572 \\ -360 \\ \hline 212^\circ \end{array}$

b) -675° I
 $\begin{array}{r} +720 \\ -675 \\ \hline 45 \end{array}$

c) 1980° neg x-axis
 $\begin{array}{r} -1080 \\ 900 \\ -720 \\ \hline 180 \end{array}$

6. Use the Unit Circle to find the value of each.

a) $[\sin(30^\circ)]^2 + [\cos(30^\circ)]^2$
 $\left(\frac{1}{2}\right)^2 + \left(\frac{\sqrt{3}}{2}\right)^2$
 $\frac{1}{4} + \frac{3}{4} = 1$

b) $[\sin(45^\circ)]^2 + [\cos(45^\circ)]^2$
 $\left(\frac{\sqrt{2}}{2}\right)^2 + \left(\frac{\sqrt{2}}{2}\right)^2$
 $\frac{2}{4} + \frac{2}{4} = 1$