

Starter

Find the exact value of each

- $\sin 60^\circ = \frac{\sqrt{3}}{2}$
- $\sin -300^\circ = -\frac{\sqrt{3}}{2}$
- $\tan -\frac{\pi}{2} = \phi$
- $\cos \frac{3\pi}{4} = -\frac{\sqrt{2}}{2}$

6.1 Trig

Degree to Radian

60° to $\frac{\pi}{3}$

$\frac{60}{180}$ Math Frac $\frac{1}{3}\pi$ or $\frac{\pi}{3}$

$150^\circ = \frac{5\pi}{6}$ Radians $\frac{150}{180}$ Math Frac

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

$\frac{4\pi}{3}$

Find $\cos\left(\frac{4\pi}{3}\text{ radians}\right) = -\frac{\sqrt{3}}{2}$

$\sin\left(\frac{4\pi}{3}\text{ radians}\right) = -\frac{1}{2}$

$\tan\left(\frac{4\pi}{3}\text{ radians}\right) = \frac{\sqrt{3}}{3}$

$-\frac{1}{2} \div -\frac{\sqrt{3}}{2} = \frac{-1}{2} \cdot \frac{2}{\sqrt{3}} = \frac{1 \cdot \sqrt{3}}{\sqrt{3}\sqrt{3}} = \frac{\sqrt{3}}{3}$

$\theta = 225^\circ$

$\cos 225^\circ = -\frac{\sqrt{2}}{2}$

$\sin 225^\circ = -\frac{\sqrt{2}}{2}$

On the calculator find $\sin 225^\circ = .71$
round nearest hundredth

$\frac{11\pi}{6}$

$\cos\left(\frac{11\pi}{6}\text{ radians}\right) = \frac{\sqrt{3}}{2}$

$\sin\left(\frac{11\pi}{6}\text{ radians}\right) = -\frac{1}{2}$