

Bellwork Wednesday, April 16, 2014

1. Find the value of each to the nearest hundredth.

a) $\text{Cot}(-75^\circ) = -0.27$ b) $\text{Sec} \frac{3\pi}{7} = 4.49$

$\frac{1}{\text{Tan}(-75^\circ)}$ $\frac{1}{\text{Cos}(3\pi/7)}$

c) $\text{Csc} 2.5 = 1.67$

$\frac{1}{\text{Sin}(2.5)}$

2. Use the Unit Circle to find the exact value of each. Rationalize all denominators.

a) $\text{Csc} 600^\circ = -\frac{2\sqrt{3}}{3}$ b) $\text{Cot} \frac{9\pi}{4} = \text{Cot} \frac{\pi}{4} = 1$

-360 $\frac{X}{Y}$

$\text{Csc} 240 = -\frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$

c) $\text{Sec} \frac{5\pi}{6} = -\frac{2}{\sqrt{3}} = -\frac{2\sqrt{3}}{3}$

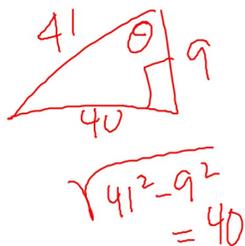
$\frac{9\pi}{4} - 2\pi$
 $\frac{9\pi}{4} - \frac{8\pi}{4}$

3. Given $\text{Sec}\theta = \frac{41}{9}$

Find the other five trig ratios. Rationalize all denominators.

$\text{Sin}\theta = \frac{40}{41}$

$\text{Cos}\theta = \frac{9}{41}$



$\text{Tan}\theta = \frac{40}{9}$

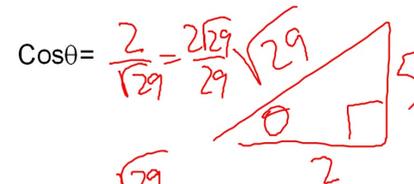
$\text{Cot}\theta = \frac{9}{40}$

$\text{Csc}\theta = \frac{41}{40}$

4. Given $\text{Cot}\theta = \frac{2}{5}$

Find the other five trig ratios. Rationalize all denominators.

$\text{Sin}\theta = \frac{5}{\sqrt{29}} = \frac{5\sqrt{29}}{29}$



$\text{Cos}\theta = \frac{2}{\sqrt{29}} = \frac{2\sqrt{29}}{29}$

$\text{Tan}\theta = \frac{5}{2}$

$\text{Sec}\theta = \frac{\sqrt{29}}{2}$

$\text{Csc}\theta = \frac{\sqrt{29}}{5}$