HW KEY

Thursday, January 21, 2016 7:42 AM

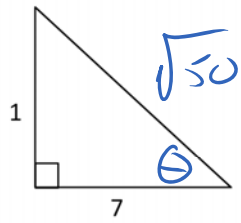
Precalculus
4.1-4.3, 5.6 and 5.7 Review

Name:

Period:

Topic Review

1. Evaluate the six trigonometric functions of the angle θ. You do not need to rationalize the denominator, but you should simplify.



$\sqrt{50}$ or $5\sqrt{2}$

$\sin\theta = \frac{1}{\sqrt{50}}$ $\quad \csc\theta = \frac{\sqrt{50}}{1}$

$\cos\theta = \frac{7}{\sqrt{50}}$ $\quad \sec\theta = \frac{\sqrt{50}}{7}$

$\tan\theta = \frac{1}{7}$ $\quad \cot\theta = \frac{7}{1}$

2. Convert the degree measure to radians or the radian measure to degrees. Then list a positive and negative angle that are coterminal with those listed (in radians and degrees).

a. $-100°$ $\quad -100 \cdot \frac{\pi}{180}$ $\quad -\frac{5\pi}{9}$

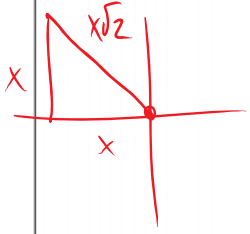
b. $175°$ $\quad 175 \cdot \frac{\pi}{180}$ $\quad \frac{35\pi}{36}$

c. -6 $\quad -6 \cdot \frac{180}{\pi}$ $\quad -\frac{1080°}{\pi}$

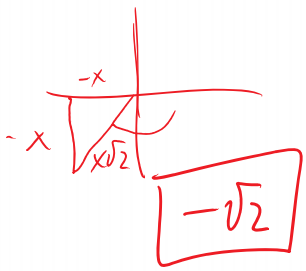
d. $\frac{2\pi}{3}$ $\quad \frac{2\pi}{3} \cdot \frac{180}{\pi}$ $\quad 120°$

3. Evaluate the function *without using a calculator*.

a. $\tan 135° = -1$

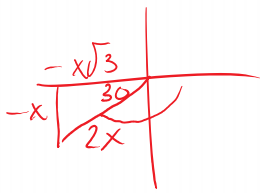


b. $\sec(-135°)$ $\quad \cos = -\frac{1}{\sqrt{2}}$

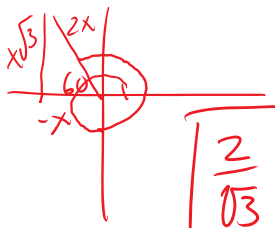


$-\sqrt{2}$

c. $\sin\left(-\frac{5\pi}{6}\right) = -\frac{1}{2}$



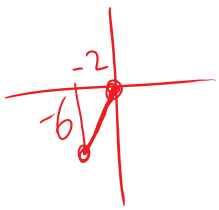
d. $\csc\left(\frac{8\pi}{3}\right)$ $\quad \sin = \frac{\sqrt{3}}{2}$



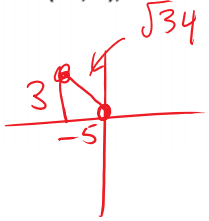
$\frac{2}{\sqrt{3}}$

4. Point P is on the terminal side of angle θ. Find the indicated trig ratio.

a. P = (-2, -6); find $\cot\theta = \frac{2}{6}$



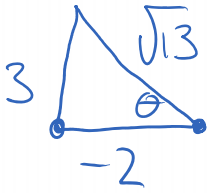
b. P (-5, 3); find $\sin\theta$



$\frac{3}{\sqrt{34}}$

5. Evaluate the following:

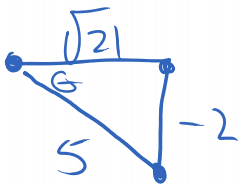
a. Find $\cos\theta$ if $\tan\theta = \left(-\frac{3}{2}\right)$ and $\sin\theta > 0$



$\frac{-2}{\sqrt{13}}$

b. Find $\sec\theta$ if $\sin\theta = \left(-\frac{2}{5}\right)$ and $\cos\theta > 0$

$\cos = \frac{\sqrt{21}}{5}$



$\frac{5}{\sqrt{21}}$

6. Things to left to review:

a. Bearings

b. Evaluating with calculator

c. Law of Sines (AAS, ASA, SSA)

d. Law of Cosines (SSS, SAS)