

WU *Closest x axis* *Draw 1st*
 FIND THE REFERENCE ANGLE FOR THE FOLLOWING:

1. 335° $\theta' = 25^\circ$ 2. 107° $\theta' = 73^\circ$ 3. -62° $\theta' = 62^\circ$

4. $11\pi/6$ $\theta' = \pi/6$ 5. $4\pi/3$ $\theta' = \pi/3$ 6. $5\pi/9$ $\theta' = \frac{4\pi}{9}$

6. $\theta = \frac{5\pi}{3}$ 7. $\theta = -130$

Apr 5-8:13 PM

Tan θ ... 2/23

Define trig functions many ways...

$\sin \theta = \frac{\text{opp}}{\text{hyp}} = \frac{y}{r}, \frac{1}{\csc \theta}$ $\csc \theta = \frac{\text{hyp}}{\text{opp}} = \frac{r}{y}, \frac{1}{\sin \theta}$

$\cos \theta = \frac{\text{adj}}{\text{hyp}} = \frac{x}{r} = \frac{1}{\sec \theta}$ $\sec \theta = \frac{\text{hyp}}{\text{adj}} = \frac{r}{x}, \frac{1}{\cos \theta}$

$\tan \theta = \frac{\text{opp}}{\text{adj}} = \frac{y}{x} = \frac{1}{\cot \theta}$ $\cot \theta = \frac{\text{adj}}{\text{opp}} = \frac{x}{y}, \frac{1}{\tan \theta}$

$\frac{\sin \theta}{\cos \theta}$ $\frac{\cos \theta}{\sin \theta}$

Feb 18-6:56 PM

1. Define Tangent in at least 3 ways
2. Define Sine in at least 2 ways
3. Define Cosine in at least 2 ways
4. Define Cotangent in at least 4 ways
5. Why does one radian measure 57°

$\frac{180^\circ}{3.14} = 57^\circ$

Apr 19-12:38 PM

HW

(24) $\sec 135^\circ = -\frac{\sqrt{2}}{1}$ (27) $\csc(-420) = -\frac{2\sqrt{3}}{3}$

(25) $\tan 240^\circ = \frac{\sqrt{3}}{1}$ (28) $\cos \frac{7\pi}{4} = \frac{\sqrt{2}}{2}$

(26) $\sin(-150^\circ) = -\frac{1}{2}$ (29) $\cot\left(\frac{8\pi}{3}\right) = \frac{\sqrt{3}}{3}$

Feb 23-11:48 AM

EVALUATE THE FOLLOWING...

1. $\sin 240$ $\theta' = 60^\circ$ $\sin 60 = \frac{\sqrt{3}}{2}$ $\sin 240 = -\frac{\sqrt{3}}{2}$

2. $\cos 135$ $\theta' = 45^\circ$ $\cos 45 = \frac{\sqrt{2}}{2}$ $\cos 135 = -\frac{\sqrt{2}}{2}$

3. $\tan 315$ $\theta' = 45^\circ$ $\tan 45 = 1$ $\tan 315 = -1$

4. $\sin 7\pi/6$ $\theta' = \pi/6$ $\sin \pi/6 = \frac{1}{2}$ $\sin 7\pi/6 = -\frac{1}{2}$

5. $\cos 5\pi/3$ $\theta' = \pi/3$ $\cos \pi/3 = \frac{1}{2}$ $\cos 5\pi/3 = \frac{1}{2}$

6. $\tan 3\pi/4$ $\theta' = \pi/4$ $\tan \pi/4 = 1$ $\tan 3\pi/4 = -1$

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$\frac{\text{anything}}{0} = \text{undef.}$

$\frac{0}{\text{anything}} = 0$

Feb 23-2:05 PM

EVALUATE THE FOLLOWING.

1. $\text{Csc } 240^\circ$
 $\theta = 60^\circ$
 $\text{Csc } 60^\circ = \frac{2}{\sqrt{3}}$
 3rd pos/neg
 $\text{Csc } 240^\circ = -\frac{2\sqrt{3}}{3}$

2. $\text{Cot } 135^\circ$
 $\theta = 45^\circ$
 $\text{Cot } 45^\circ = 1$
 3rd pos/neg
 $\text{Cot } 135^\circ = -1$

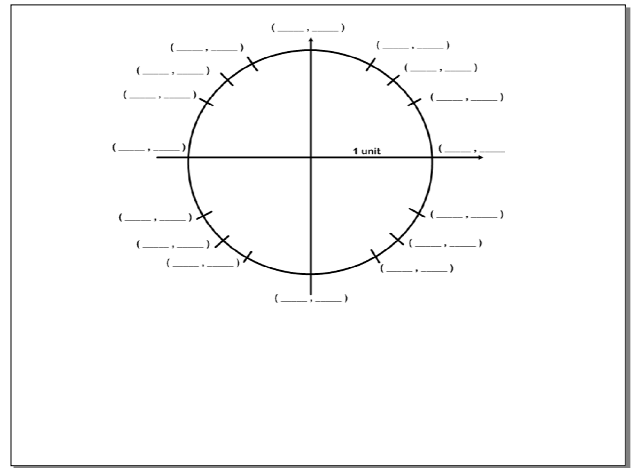
3. $\text{Sec } 315^\circ$
 $\theta = 45^\circ$
 $\text{Sec } 45^\circ = \frac{\sqrt{2}}{1}$
 4th pos/neg
 $\text{Sec } 315^\circ = +\sqrt{2}$

4. $\text{Cot } 7\pi/6$
 $\theta = \pi/6$
 Think 30°
 $\text{Cot } \pi/6 = \frac{\sqrt{3}}{1}$
 pos/neg
 $\text{Cot } 7\pi/6 = -\sqrt{3}$

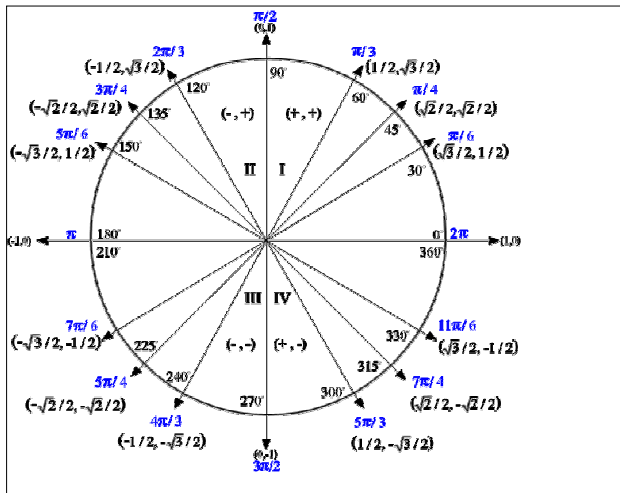
5. $\text{Csc } 5\pi/3$
 $\theta = \pi/3$
 Think 60°
 $\text{Csc } \pi/3 = \frac{2}{1}$
 pos/neg
 $\text{Csc } 5\pi/3 = -2$

6. $\text{Csc } 3\pi/4$

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Feb 18-7:02 PM



Apr 5-8:14 PM

Do you know your special right triangles?
 Can you solve triangles?
 Can you list 6 trig ratios?
 Can you draw angles in degrees and radians?
 Can you convert between radians and degrees?
 Can you find coterminal angles in degrees & radians?
 Can you find reference angles?
 Can you evaluate angles?

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