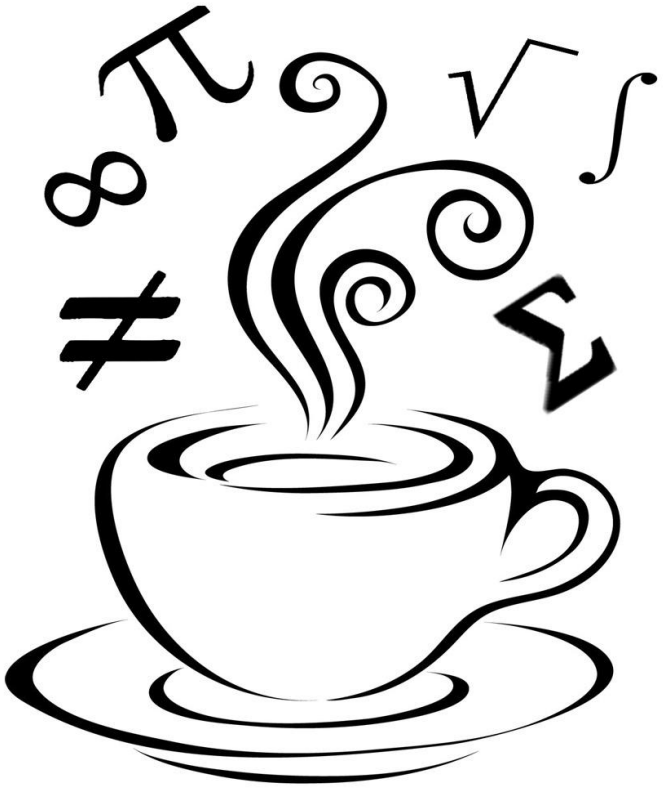
Find All 6 Trig Values Using the Unit Circle Given a Value on the Circle (in Radians)

We're Bruyn Math



Shari Bruyn & Associates

Putting the Fun in the Fundamentals of Math

Functions – Find All 6 Values Using the Unit Circle

Why is it so hard to punish a vampire? Fill in the values below. Pick out the solutions from the bottom of the page to complete the riddle.

$\Theta=\frac{5\pi}{6}$

Y. $\sin\Theta=$ $\csc\Theta=$

$\cos\Theta=$ A. $\sec\Theta=$

W. $\tan\Theta=$ $\cot\Theta=$

$\Theta=\frac{\pi}{2}$

$\sin\Theta=$ S. $\csc\Theta=$

B. $\cos\Theta=$ $\sec\Theta=$

$\tan\Theta=$ $\cot\Theta=$

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

O. $\sin\Theta=$ $\csc\Theta=$

$\cos\Theta=$ $\sec\Theta=$

$\tan\Theta=$ T. $\cot\Theta=$

$\Theta=\pi$

$\sin\Theta=$ $\csc\Theta=$

$\cos\Theta=$ N. $\sec\Theta=$

$\tan\Theta=$ F. $\cot\Theta=$

$\Theta=\frac{5\pi}{4}$

$\sin\Theta=$ V. $\csc\Theta=$

D. $\cos\Theta=$ $\sec\Theta=$

$\tan\Theta=$ $\cot\Theta=$

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

E. $\sin\Theta=$ $\csc\Theta=$

$\cos\Theta=$ $\sec\Theta=$

$\tan\Theta=$ H. $\cot\Theta=$

$\Theta=\frac{\pi}{3}$

L. $\sin\Theta=$ $\csc\Theta=$

$\cos\Theta=$ $\sec\Theta=$

R. $\tan\Theta=$ $\cot\Theta=$

$\Theta=\frac{\pi}{4}$

$\sin\Theta=$ U. $\csc\Theta=$

C. $\cos\Theta=$ $\sec\Theta=$

$\tan\Theta=$ $\cot\Theta=$

$0 \quad -\frac{1}{2} \quad \frac{\sqrt{2}}{2} \quad \frac{-2\sqrt{3}}{3} \quad \sqrt{2} \quad 1 \quad -\frac{1}{2} \quad \frac{\sqrt{3}}{3} \quad -\sqrt{3} \quad -\frac{1}{2} \quad \frac{1}{2} \quad \frac{\sqrt{2}}{2} \quad \frac{-2\sqrt{3}}{3} \quad -1 \quad -1 \quad \frac{-\sqrt{3}}{2} \quad \frac{\sqrt{3}}{3}$

$\sqrt{3} \quad -\frac{1}{2} \quad \varnothing \quad \frac{\sqrt{3}}{2} \quad -\frac{1}{2} \quad \frac{\sqrt{2}}{2} \quad \frac{\sqrt{3}}{3} \quad \frac{-\sqrt{3}}{2} \quad -1 \quad \frac{-\sqrt{3}}{3} \quad -\sqrt{3} \quad \frac{-2\sqrt{3}}{3} \quad \frac{\sqrt{3}}{3} \quad \frac{\sqrt{3}}{3} \quad -\sqrt{3} \quad -\frac{1}{2} \quad \frac{1}{2}$

$-\sqrt{3} \quad \frac{-2\sqrt{3}}{3} \quad -\sqrt{2} \quad -\frac{1}{2} \quad \frac{-\sqrt{2}}{2} \quad \frac{-\sqrt{3}}{2} \quad -1 \quad -\frac{1}{2}$

Functions – Find All 6 Values Using the Unit Circle

Why is it so hard to punish a vampire? Fill in the values below. Pick out the solutions from the second page to complete the riddle.

$\Theta = \frac{5\pi}{6}$

Y. $\sin\Theta = \frac{1}{2}$ $\quad \csc\Theta = 2$

$\cos\Theta = \frac{-\sqrt{3}}{2}$ $\quad$ A. $\sec\Theta = \frac{-2\sqrt{3}}{3}$

W. $\tan\Theta = \frac{-\sqrt{3}}{3}$ $\quad \cot\Theta = -\sqrt{3}$

$\Theta = \frac{\pi}{2}$

$\sin\Theta = 1$ $\quad$ S. $\csc\Theta = 1$

B. $\cos\Theta = 0$ $\quad \sec\Theta = \varnothing$

$\tan\Theta = \varnothing$ $\quad \cot\Theta = 0$

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

O. $\sin\Theta = \frac{-\sqrt{3}}{2}$ $\quad \csc\Theta = \frac{-2\sqrt{3}}{3}$

$\cos\Theta = -\frac{1}{2}$ $\quad \sec\Theta = -2$

$\tan\Theta = \sqrt{3}$ $\quad$ T. $\cot\Theta = \frac{\sqrt{3}}{3}$

$\Theta = \pi$

$\sin\Theta = 0$ $\quad \csc\Theta = \varnothing$

$\cos\Theta = -1$ $\quad$ N. $\sec\Theta = -1$

$\tan\Theta = 0$ $\quad$ F. $\cot\Theta = \varnothing$

$\Theta = \frac{5\pi}{4}$

$\sin\Theta = \frac{-\sqrt{2}}{2}$ $\quad$ V. $\csc\Theta = -\sqrt{2}$

D. $\cos\Theta = \frac{-\sqrt{2}}{2}$ $\quad \sec\Theta = -\sqrt{2}$

$\tan\Theta = 1$ $\quad \cot\Theta = 1$

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

E. $\sin\Theta = -\frac{1}{2}$ $\quad \csc\Theta = -2$

$\cos\Theta = \frac{\sqrt{3}}{2}$ $\quad \sec\Theta = \frac{2\sqrt{3}}{3}$

$\tan\Theta = \frac{-\sqrt{3}}{3}$ $\quad$ H. $\cot\Theta = -\sqrt{3}$

$\Theta = \frac{\pi}{3}$

L. $\sin\Theta = \frac{\sqrt{3}}{2}$ $\quad \csc\Theta = \frac{2\sqrt{3}}{3}$

$\cos\Theta = \frac{1}{2}$ $\quad \sec\Theta = 2$

R. $\tan\Theta = \sqrt{3}$ $\quad \cot\Theta = \frac{\sqrt{3}}{3}$

$\Theta = \frac{\pi}{4}$

$\sin\Theta = \frac{\sqrt{2}}{2}$ $\quad$ U. $\csc\Theta = \sqrt{2}$

C. $\cos\Theta = \frac{\sqrt{2}}{2}$ $\quad \sec\Theta = \sqrt{2}$

$\tan\Theta = 1$ $\quad \cot\Theta = 1$

B	E	C	A	U	S	E	T	H	E	Y	C	A	N	N	O	T
0	$-\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{-2\sqrt{3}}{3}$	$\sqrt{2}$	1	$-\frac{1}{2}$	$\frac{\sqrt{3}}{3}$	$-\sqrt{3}$	$-\frac{1}{2}$	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{-2\sqrt{3}}{3}$	-1	-1	$\frac{-\sqrt{3}}{2}$	$\frac{\sqrt{3}}{3}$

R	E	F	L	E	C	T	O	N	W	H	A	T	T	H	E	Y
$\sqrt{3}$	$-\frac{1}{2}$	$\varnothing$	$\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{3}$	$\frac{-\sqrt{3}}{2}$	-1	$\frac{-\sqrt{3}}{3}$	$-\sqrt{3}$	$\frac{-2\sqrt{3}}{3}$	$\frac{\sqrt{3}}{3}$	$\frac{\sqrt{3}}{3}$	$-\sqrt{3}$	$-\frac{1}{2}$	$\frac{1}{2}$

H	A	V	E	D	O	N	E
$-\sqrt{3}$	$\frac{-2\sqrt{3}}{3}$	$-\sqrt{2}$	$-\frac{1}{2}$	$\frac{-\sqrt{2}}{2}$	$\frac{-\sqrt{3}}{2}$	-1	$-\frac{1}{2}$

Because they cannot reflect on what they have done.