

Graph of Trig Functions

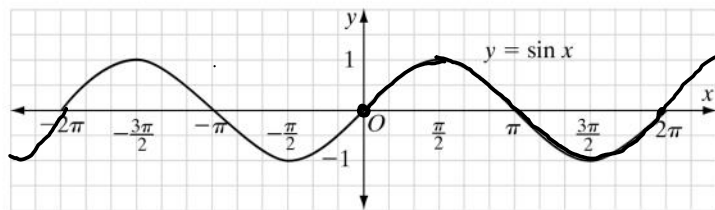
Tuesday, September 6, 2016 8:52 AM



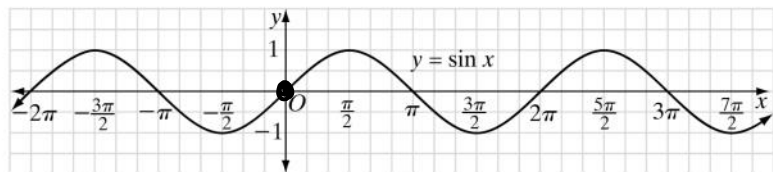
Graph of Trig Functions

GRAPH OF THE SINE FUNCTION

x	-2π	$-\frac{11\pi}{6}$	$-\frac{5\pi}{3}$	$-\frac{3\pi}{2}$	$-\frac{4\pi}{3}$	$-\frac{7\pi}{6}$	$-\pi$	$-\frac{5\pi}{6}$	$-\frac{2\pi}{3}$	$-\frac{\pi}{2}$	$-\frac{\pi}{3}$	$-\frac{\pi}{6}$	0
$\sin x$	0	0.5	0.87	1	0.87	0.5	0	-0.5	-0.87	-1	-0.87	-0.5	0



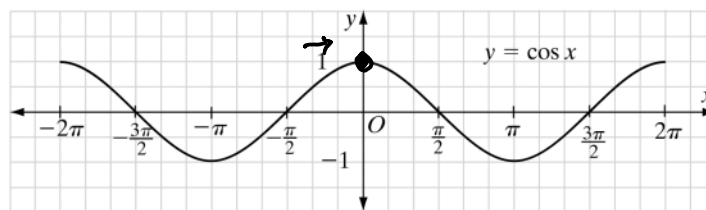
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A30-A31



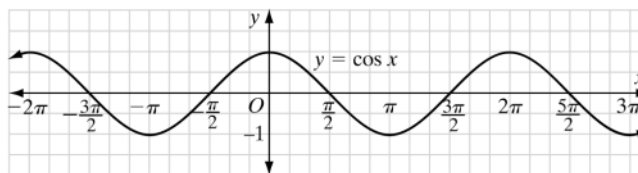
► The period of the sine function $y = \sin x$ is 2π .

GRAPH OF THE COSINE FUNCTION

x	-2π	$-\frac{11\pi}{6}$	$-\frac{5\pi}{3}$	$-\frac{3\pi}{2}$	$-\frac{4\pi}{3}$	$-\frac{7\pi}{6}$	$-\pi$	$-\frac{5\pi}{6}$	$-\frac{2\pi}{3}$	$-\frac{\pi}{2}$	$-\frac{\pi}{3}$	$-\frac{\pi}{6}$	0
$\cos x$	1	0.87	0.5	0	-0.5	-0.87	-1	-0.87	-0.5	0	0.5	0.87	1



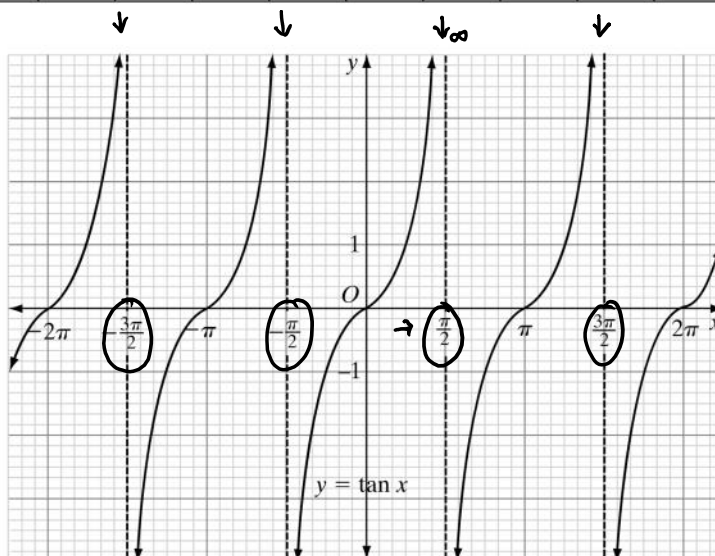
► The period of the cosine function $y = \cos x$ is 2π .



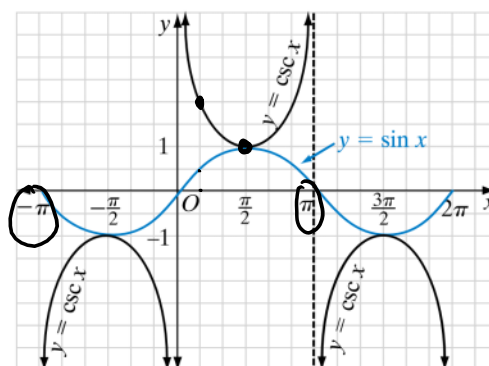
GRAPH OF THE TANGENT FUNCTION

x	-2π	$-\frac{11\pi}{6}$	$-\frac{5\pi}{3}$	$-\frac{3\pi}{2}$	$-\frac{4\pi}{3}$	$-\frac{7\pi}{6}$	$-\pi$	$-\frac{5\pi}{6}$	$-\frac{2\pi}{3}$	$-\frac{\pi}{2}$	$-\frac{\pi}{3}$	$-\frac{\pi}{6}$
tan x	0	0.58	1.73	—	-1.73	-0.58	0	0.58	1.73	—	-1.73	-0.58

x	0	$\frac{\pi}{6}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{5\pi}{6}$	π	$\frac{7\pi}{6}$	$\frac{4\pi}{3}$	$\frac{3\pi}{2}$	$\frac{5\pi}{3}$	$\frac{11\pi}{6}$	2π
tan x	0	0.58	1.73	—	-1.73	-0.58	0	0.58	1.73	—	-1.73	-0.58	0



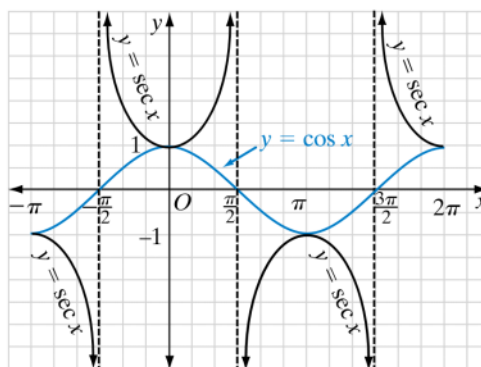
The Cosecant Function



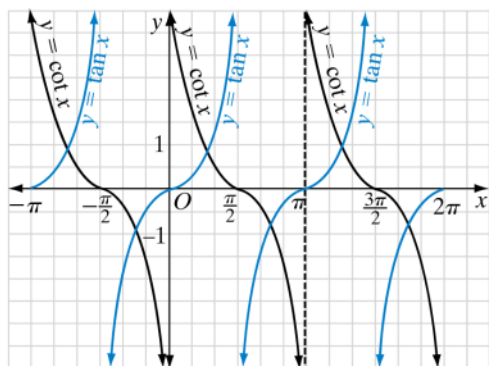
$$-\infty < \csc x \leq -1 \qquad 1 \leq \csc x < \infty$$

The Secant Function

$$-\infty < \sec x \leq -1 \qquad 1 \leq \sec x < \infty$$



The Cotangent Function



Look at pages A30 - A31