

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Summary of Trigonometric Identities

BLM 4-6

Trigonometric Identities			
$\sin x = \cos\left(\frac{\pi}{2} - x\right)$	$\cos x = \sin\left(\frac{\pi}{2} - x\right)$	$\sin\left(\frac{\pi}{2} + x\right) = \cos x$	$\cos\left(\frac{\pi}{2} + x\right) = -\sin x$
$\tan x = \cot\left(\frac{\pi}{2} - x\right)$	$\cot x = \tan\left(\frac{\pi}{2} - x\right)$	$\tan\left(\frac{\pi}{2} + x\right) = -\cot x$	$\cot\left(\frac{\pi}{2} + x\right) = -\tan x$
$\csc x = \sec\left(\frac{\pi}{2} - x\right)$	$\sec x = \csc\left(\frac{\pi}{2} - x\right)$	$\csc\left(\frac{\pi}{2} + x\right) = \sec x$	$\sec\left(\frac{\pi}{2} + x\right) = -\csc x$
$\sin(\pi - x) = \sin x$	$\cos(\pi - x) = -\cos x$	$\sin(\pi + x) = -\sin x$	$\cos(\pi + x) = -\cos x$
$\tan(\pi - x) = -\tan x$	$\cot(\pi - x) = -\cot x$	$\tan(\pi + x) = \tan x$	$\cot(\pi + x) = \cot x$
$\csc(\pi - x) = \csc x$	$\sec(\pi - x) = -\sec x$	$\csc(\pi + x) = -\csc x$	$\sec(\pi + x) = -\sec x$
$\sin\left(\frac{3\pi}{2} - x\right) = -\cos x$	$\cos\left(\frac{3\pi}{2} - x\right) = -\sin x$	$\sin\left(\frac{3\pi}{2} + x\right) = -\cos x$	$\cos\left(\frac{3\pi}{2} + x\right) = \sin x$
$\tan\left(\frac{3\pi}{2} - x\right) = \cot x$	$\cot\left(\frac{3\pi}{2} - x\right) = \tan x$	$\tan\left(\frac{3\pi}{2} + x\right) = -\cot x$	$\cot\left(\frac{3\pi}{2} + x\right) = -\tan x$
$\csc\left(\frac{3\pi}{2} - x\right) = -\sec x$	$\sec\left(\frac{3\pi}{2} - x\right) = -\csc x$	$\csc\left(\frac{3\pi}{2} + x\right) = -\sec x$	$\sec\left(\frac{3\pi}{2} + x\right) = \csc x$
$\sin(2\pi - x) = -\sin x$	$\cos(2\pi - x) = \cos x$		
$\tan(2\pi - x) = -\tan x$	$\cot(2\pi - x) = -\cot x$		
$\csc(2\pi - x) = -\csc x$	$\sec(2\pi - x) = \sec x$		