

Pre-Calc Academic  
Study Guide: Verify Identities

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

(Do on separate paper)

1.)  $\tan(\pi/2 - x)\sec x = \csc x$

2.)  $\frac{\cos(\pi/2 - x)}{\sin(\pi/2 - x)} = \tan x$

3.)  $\frac{\csc(-x)}{\sec(-x)} = -\cot x$

4.)  $(1 + \sin y)(1 + \sin(-y)) = \cos^2 y$

5.)  $\frac{\cos(-x)}{1 + \sin(-x)} = \sec x + \tan x$

6.)  $\frac{\tan x \cot x}{\cos x} = \sec x$

7.)  $\frac{1 + \csc \theta}{\sec \theta} - \cot \theta = \cos \theta$

8.)  $\csc^4 x - 2\csc^2 x + 1 = \cot^4 x$

9.)  $\frac{\sin x}{1 - \cos x} = \frac{1 + \cos x}{\sin x}$

10.)  $\frac{\cot x}{\csc x - 1} = \frac{\csc x + 1}{\cot x}$