SLU PreCalculus Quiz 5 Solution Fall 2007

NAME: _____Score_____/10

Please **print** your name

Some unit circles are provided. Use them if they help you analyze the question.

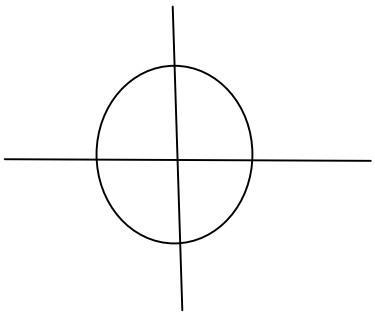
1. Express tan(x), cot(x), sec(x), and csc(x) in terms of sin(x) and/or cos(x)

$\tan(x) = \frac{\sin(x)}{\cos(x)}$

$\cot(x) = \frac{\cos(x)}{\sin(x)}$

$\sec(x) = \frac{1}{\cos(x)}$

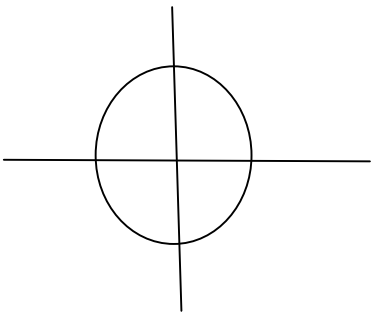
$\csc(x) = \frac{1}{\sin(x)}$



2. Complete each of the following Pythagorean identities.

$\sin^2(x) = \mathbf{1 - \cos^2(x)}$

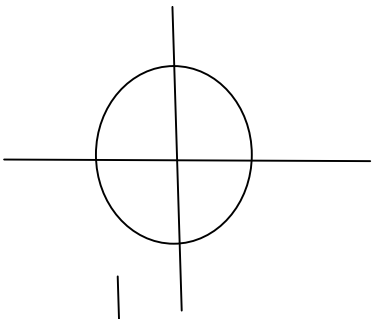
$\sec^2(x) = \mathbf{1 + \tan^2(x)}$



3. Complete the following identities for negatives.

$\sin(-x) = \mathbf{-\sin(x)}$

$\cos(-x) = \mathbf{\cos(x)}$



4. What is the domain of sin?

The domain of sin is all real numbers.

5. Convert 23°37′13″ to decimal degrees.

23°37′13″ = $23 + \frac{37}{60} + \frac{13}{3600} = 23.62^\circ$