Math 49B (8:30am – 9:20am)
Quiz 2
Fri Oct 3, 2008

SCORE: ___ / 20 POINTS

What day of the month is your birthday ? ___ ___
What are the last 2 digits of your address ? ___ ___
What are the last 2 digits of your zip code ? ___ ___
What are the last 2 digits of your social security number ? ___ ___
[IF YOU DO NOT HAVE A SOCIAL SECURITY NUMBER, USE YOUR STUDENT ID NUMBER]

Sketch two full periods of the graph of $y = 2\tan\frac{x}{4}$.

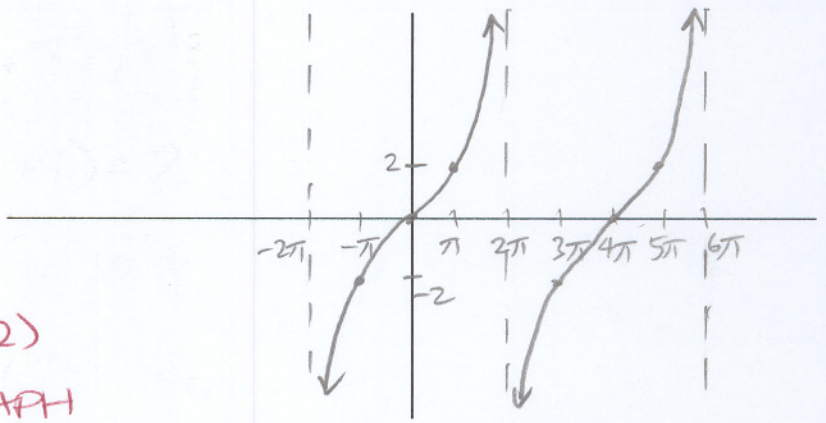
Label the 2 y-coordinates and 8 x-coordinates discussed in class.

SCORE: ___ / 6 POINTS

PERIOD $= \frac{\pi}{\frac{1}{4}} = 4\pi$

$\frac{1}{4}$ PERIOD $= \pi$

POINTS
1 x COORDINATES
1 y COORDINATES
1 ASYMPTOTES
1 POINTS $(\pi, 2), (-\pi, -2)$
2 SHAPE OF tan GRAPH



State the domain and range of $y = \arccos x$.

MAKE SURE THE ENDPOINTS ARE INCLUDED

SCORE: ___ / 2 POINTS

DOMAIN: $[-1, 1]$ 1 RANGE: $[0, \pi]$ 1

Evaluate the following expressions.

IF YOU HAD MORE THAN 1 ANSWER FOR A QUESTION, OR YOU WROTE $+n\pi$ OR $+2n\pi$, SUBTRACT ½ POINT EACH TIME

SCORE: ___ / 6 POINTS

[a] $\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right) = \frac{3\pi}{4}$ 1

[b] $\arctan\sqrt{3} = \frac{\pi}{3}$ 1

[c] $\sin^{-1}\frac{\sqrt{3}}{2} = \frac{\pi}{3}$ 1

[d] $\arcsin(-1) = -\frac{\pi}{2}$ 1

[e] $\arccos 0 = \frac{\pi}{2}$ 1

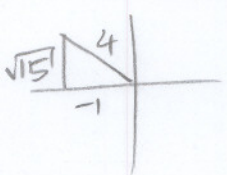
[f] $\tan^{-1}\left(-\frac{\sqrt{3}}{3}\right) = -\frac{\pi}{6}$ 1

Evaluate the following expressions. If a value does not exist, write UNDEFINED.

SCORE: ___ / 6 POINTS

[a] $\cos(\arccos(\pi)) =$ UNDEFINED 2

[b] $\sin\left(\cos^{-1}\left(-\frac{1}{4}\right)\right) = \frac{\sqrt{15}}{4}$ 2



[c] $\cot(\arccos 3x) =$ $\frac{3x}{\sqrt{1-9x^2}}$ 2

(assume $0 \le x < \frac{1}{3}$)