

Name _____ Banner _____

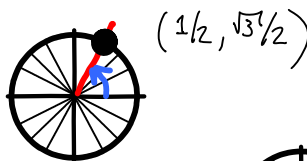
Fall 2007

Quiz #7

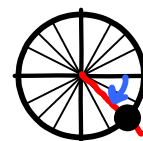
Solutions

#1) Evaluate the following functions for the given values.

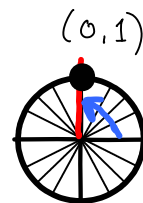
A) $\sin(\pi/3) = \sqrt{3}/2$



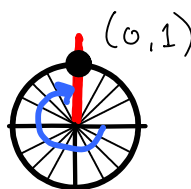
B) $\cos(-45^\circ) = \sqrt{2}/2$



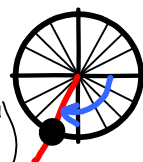
C) $\tan(4\pi/8) = \text{undefined}$



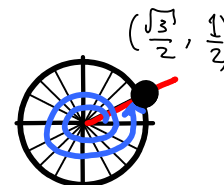
d) $\cot(-270^\circ) = 0$



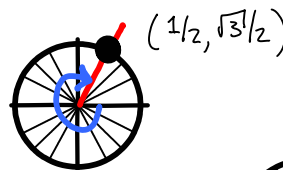
e) $\sec(-2\pi/3) = -2$



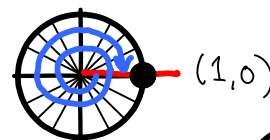
f) $\csc(75^\circ) = 2$



g) $\sin(-300^\circ) = \sqrt{3}/2$



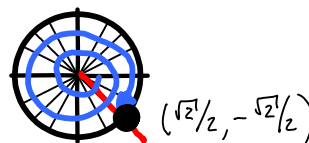
h) $\cos(-8\pi/2) = 1$



i) $\sin(-120^\circ) = -\sqrt{3}/2$



j) $\tan(-765^\circ) = -1$



#2) Graph the following:

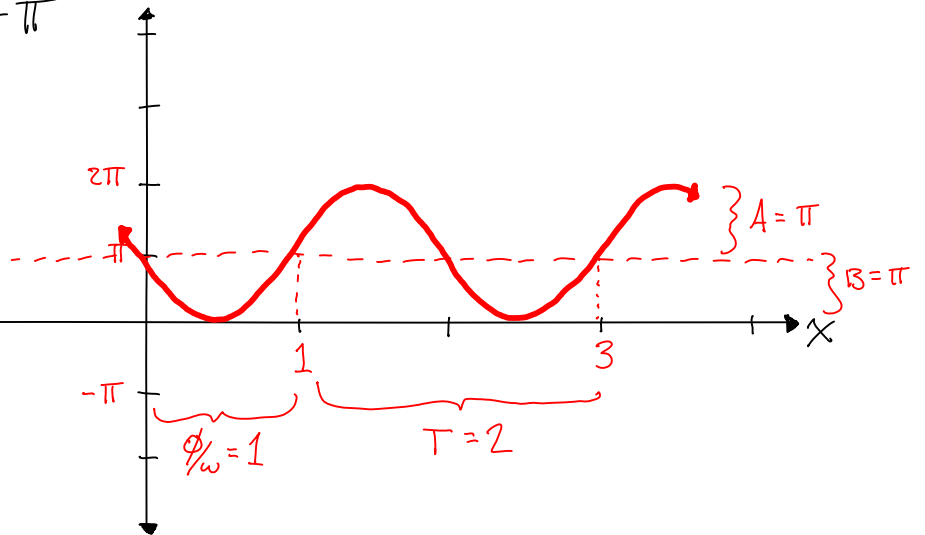
A) $y = \pi \sin(\pi x - \pi) + \pi$

Period: $T = 2\pi/\omega = 2\pi/\pi = 2$

Phase Shift: $\phi/\omega = \pi/\pi = 1$

Amplitude: $A = \pi$

Vertical Shift = π



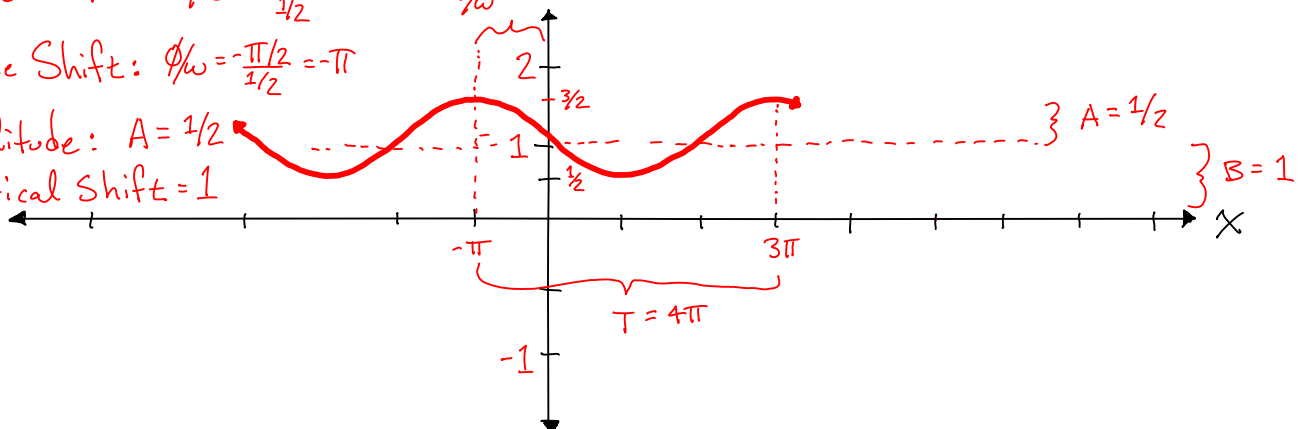
B) $y = \frac{\cos(\frac{x+\pi}{2}) + 2}{2} = \frac{1}{2} \cos(\frac{1}{2}x + \frac{\pi}{2}) + 1$

Period: $T = 2\pi/\omega = \frac{2\pi}{1/2} = 4\pi$

Phase Shift: $\phi/\omega = \frac{-\pi/2}{1/2} = -\pi$

Amplitude: $A = 1/2$

Vertical Shift = 1



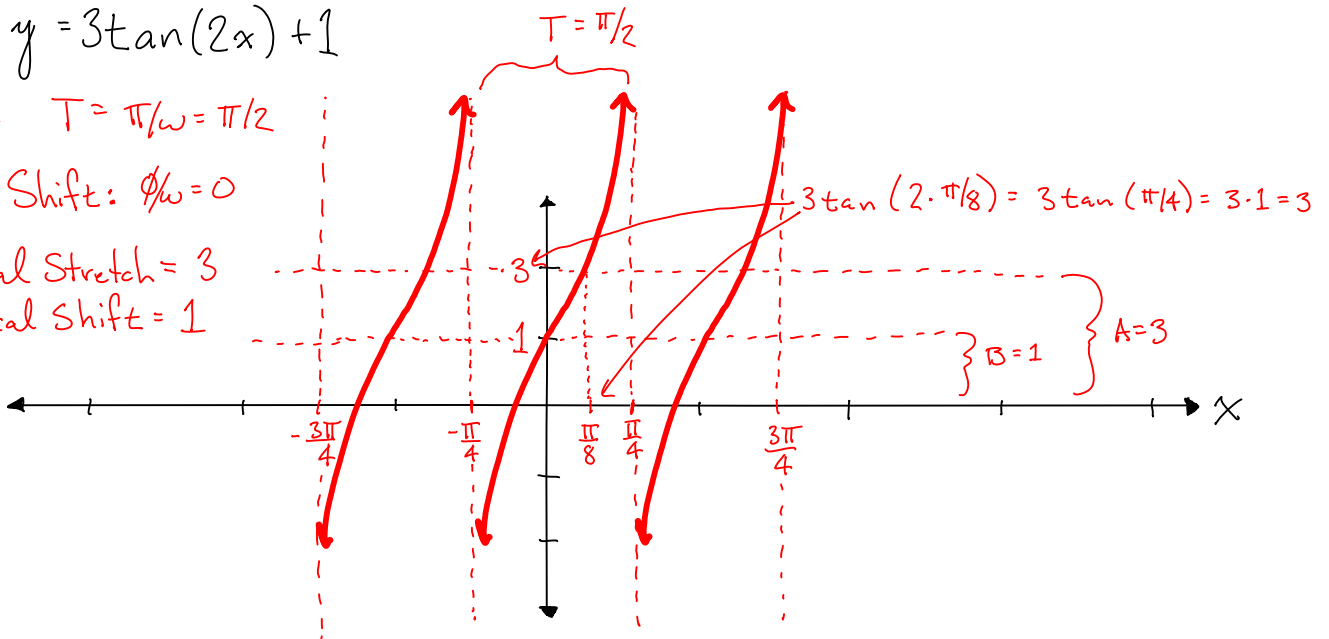
C) $y = 3 \tan(2x) + 1$

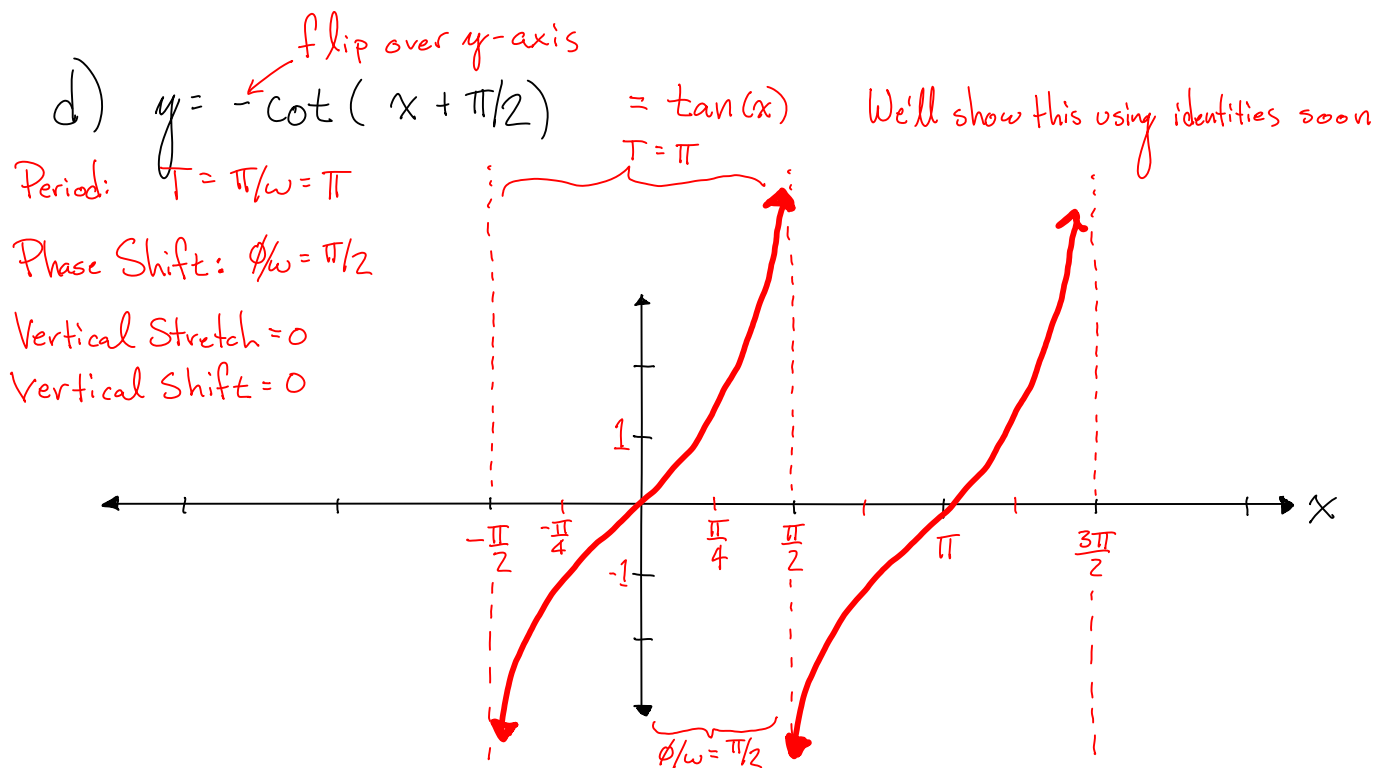
Period: $T = \pi/\omega = \pi/2$

Phase Shift: $\phi/\omega = 0$

Vertical Stretch = 3

Vertical Shift = 1





Extra Credit: Name some of Pythagoras' achievements other than the Pythagorean Theorem. Give as much detail as you can. Points are awarded based on the quality of your answer.

Try wikipedia.org and search "Pythagoras".