

Name \_\_\_\_\_ Banner \_\_\_\_\_

Fall 2007

Quiz #8

Precalculus

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**#1) True or False**

- A) If the graph of a function passes the horizontal line test then that function has an inverse.
- B) If you flip the graph of a function over the x axis you get the graph of that function's inverse.
- C) The function  $f(x) = x^2$  has an inverse function.
- D) The function  $g(x) = x^3$  has an inverse function.
- E)  $\sqrt{x^2} = x$
- F)  $\sqrt{x^2} = \pm x$
- G) If  $f(x)$  has an inverse  $f^{-1}(x)$  then  $f^{-1}(f(x)) = f(f^{-1}(x)) = x$
- H) If  $f(x)$  has an inverse  $f^{-1}(x)$  then  $(f^{-1})^{-1} = f$
- I) If  $f(x)$  has an inverse  $f^{-1}(x)$  then  $f^{-1}(x) = 1/x \neq 1/f(x)$
- J) Cosine is the inverse of sine

**#2) Solve for t. Write your answers using proper notation.**

A)  $\sin(t) = 1/2$

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B)  $2\cos(t) = \sqrt{3}$

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C)  $\tan(t) = \pm 1$

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Extra Credit: Why is the number zero placed after 9 on your keyboard and cell phone even though zero comes before 1 on the number line?