

Math 32 Quiz

GSI: Theo Johnson-Freyd
<http://math.berkeley.edu/~theo/fj/08Fall32/>

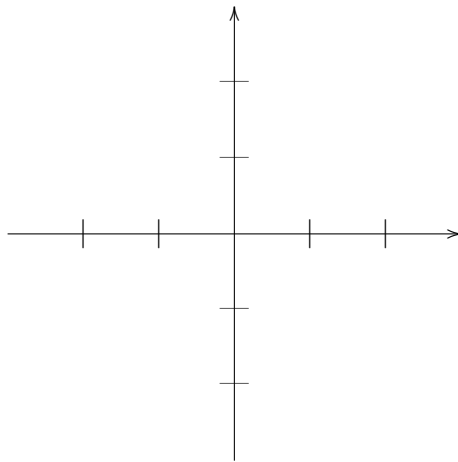
Thursday, September 25, 2008

Name: _____ Score: _____ /10

You have twenty minutes to complete this quiz. You may not use calculators or notes, but the chalkboards are yours.

1. (2 pts) Sketch a graph of the function F :

$$F(x) = \begin{cases} \sqrt{1-x^2} & \text{if } -1 \leq x < 0 \\ \sqrt{x} & \text{if } x \geq 0 \end{cases}$$



2. (2 pts) Find the domain of the function G :

$$G(x) = \frac{x}{6x^2 + 7x - 3}$$

3. (3 pts) Calculate the inverse function H^{-1} , where H is defined by:

$$H(x) = \frac{x + 4}{3x - 1}$$

4. (3 pts) The graph of a function $K(x)$ is a line segment joining the two points $(-3, 1)$ and $(5, 6)$. Determine the slope of the line segment that results from graphing $y = K^{-1}(-x + 1)$.