

Math 111 Quiz #2

Name: _____

April 14, 2008

Show all work and simplify as much as possible.

1. (2 pts.) Are the lines $3y = 6x + 1$ and $2x + 4y = 8$ parallel, perpendicular, or neither?

2. (1 pt.) Find the domain of the function $g(x) = \frac{1}{(x-3)^2}$.

3. Use the function $h(x) = \sqrt{100 - x^2}$ in parts (a) & (b) below.

(a) (3 pts.) Evaluate the following:

- i. $h(9)$ ii. $h(t - 3)$

(b) (2 pts.) Solve $h(x) = 6$.

4. (2 pts.) Sketch the piecewise-defined function

$f(x) = \begin{cases} -x + 1 & \text{if } x \geq 2 \\ x & \text{if } x < 0 \end{cases}$ on the axes to the right. Put a scale on your axes.

For question #4

