

Math 111 Quiz #3
April 23, 2010

Name: _____

Show all work and answers on a separate sheet with a box around your final answer. No calculators.

1. Find the following given the table below.

x	0	1	2	3
$y = g(x)$	1	2	0	1

(a) (1 pt.) $g(2)$

(b) (1 pt.) $g(g(2))$

(c) (1 pt.) $g^{-1}(2)$

2. (2 pts.) Write a formula for the composition $f(h(x))$ if $f(x) = \sqrt{x} - 1$ and $h(x) = 2x^2 + 6x$.

3. (3 pts.) For the function $y = f(x) = \sqrt{x} - 1$, find the inverse function $x = f^{-1}(y)$.

4. (3 pts.) Find the x -values for which $h(x) = 2x^2 + 6x$ is equal to 36.
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Note: Quadratic Formula: $ax^2 + bx + c = 0 \Rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$