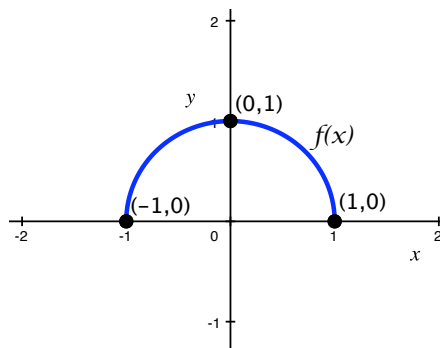


Math 111 Quiz #6
May 11, 2010

Name: _____

Show all work and answers on a separate sheet with a box around your final answer. You should use a calculator for this quiz.

1. (3 pts.) If a substance decays 2% each minute, what is the half-life of the substance? (Include units in your answer. Give the exact answer **and** the approximation to 4 decimal places.)
2. (a) (2 pts.) What is the domain of the function $h(x) = 2\ln(x - 3)$?
(b) (1 pt.) Does $h(x) = 2\ln(x - 3)$ have a vertical asymptote? If so, write the equation for the vertical asymptote.
3. (2 pts.) The graph of $f(x)$ is given to the right. Sketch the graph of $f(x - 2) - 1$ on a nice set of axes with a complete scale.



4. (2 pts.) Suppose an unknown function $g(x)$ has the range $-3 \leq y \leq 2$. What is the range of $g(x + 7) + 1$?