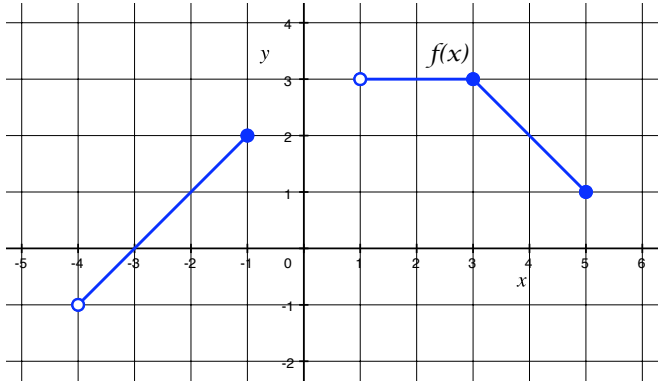


Name: _____

Math 111 Worksheet #3
October 5, 2007

1. The following is a graph of the piecewise-defined function $f(x)$.



(a) Evaluate $3f(4) - f(2)$.

(b) Find all x such that $f(x) = 1$.

(c) Solve $f(x) = 2$.

(d) State the domain and range of f .

(e) Write a formula for $f(x)$.

2. Sketch the function $g(x) = \begin{cases} 2x + 1 & \text{if } x < 1 \\ -1 & \text{if } x \geq 1 \end{cases}$. What is the range of the function?

3. What is the domain of the function $h(x) = \frac{5}{x-2} + 3$?