

Math 105 Quiz One

Name: _____

1. Graph the following piecewise function.

$$f(x) = \begin{cases} 3 & -5 \leq x < -3 \\ -x - 2 & -3 \leq x \leq 2 \\ 2x - 8 & 2 < x \leq 5 \end{cases}$$

2. Let $f(x) = |x|$ and g be defined by the rule ' $g(x)$ is the slope of the graph of f at x .' Find a symbolic expression (formula) for g . Make sure that you specify the natural domain for g .