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 \( g \).