Calculus HW Quiz 2.4 - 3.2 HW Name_____

Find the average rate of change of the function over the given interval.

1) $f(x) = x^2 + 2x, \quad [1, 7]$

A) 10 B) $\frac{60}{7}$ C) $\frac{21}{2}$ D) 9

Find the slope of the line tangent to the curve at the given value of x using a definition of the derivative .

2) $f(x) = \frac{-2}{x + 5}; x = -2$

3) $f(x) = x^2 + 7x$ at $x = 8$.

The figure shows the graph of two functions. At x = 0, does the function appear to be differentiable, continuous but not differentiable, or neither continuous nor differentiable?

4)