MATH 133 – Calculus with Fundamentals 1
Makeup Quiz 5 – October 30, 2017

Your Name: _____

Directions

Do all work on this sheet. There are 30 possible points.

1) Use the "short-cut" rules to find the derivatives of the following functions:

   (a) (10) $f(x) = 6x^8 + 2\sqrt{x} + e^x - 4e^2$

   (b) (10) $g(x) = (x^3 + 2)(x^2 + 4x)$ (Hint: You do not need the product rule for this, but you can use it if you want!)
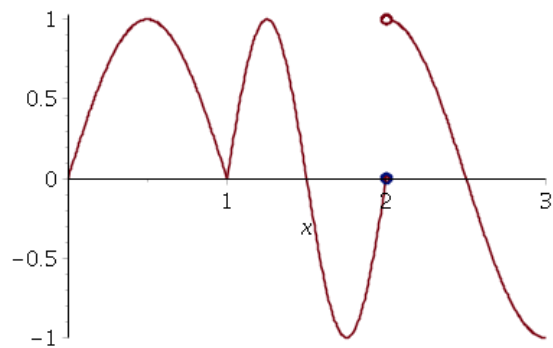
Figure 1: The Graph $y = f(x)$ for question 2.

2) By examining the graph answer these questions.

    (a) (5) Does $f'(1)$ exist? _____ (Y/N) Why or why not?

    (b) (5) Does $f'(2)$ exist? _____ (Y/N) Why or why not?