6 (Writing?) Assignment Due Thursday, March 5

Prompt. Solve all the problems on the following pages. Show all your work and upload your solutions in PDF format to Canvas by the usual 11:59 PM deadline.

Format. PDF format only.

Some context. Doing these problems will help you in preparing a little for our exam. Also, the department as a whole assigns these problems to every calculus student as a homework assignment; this is why the font and format of the following are different from my usual assignments.

Name _____

MATH 2471   Homework Assignment

Consider $f(x) = 3x^2 + 2x + 2$. Show all your work and simplify each expression.

Find:

a. $f(-1)$

b. $f(-1+h)$

c. $f(-1+h) - f(-1)$

d. $\dfrac{f(-1+h) - f(-1)}{h}$

e. Use some of steps a. through d. to find $\displaystyle\lim_{h \to 0} \dfrac{f(-1+h) - f(-1)}{h}$

NAME _____

MATH 2471   HOMEWORK ASSIGNMENT

Find the derivative of $f(x) = x^3 + 5x^2 - 17$

Find the derivative of $g(x) = \cos(x)$.

Find the derivative of $h(x) = \cos(x^3 + 5x^2 - 17)$.