

This is a take home quiz. You may use our class notes and a calculus text, but you should not use the internet or other people to assist you. Write the solutions below, and attach your supporting work- Solutions with no justification will receive no credit!

Due Monday *at the beginning of class*. Section numbers are given if you would like more information.

1. (1.1) If  $f(x) = x^2 + 2x - 1$ , write (and simplify) the expression for  $\frac{f(a+h)-f(a)}{h}$

2. (App. A) Solve the inequality for  $x$ :  $(2x + 3)(x - 2) \leq 0$

3. (App. B) Find a point on the  $y$ -axis that is equidistant from  $(2, -2)$  and  $(3, 4)$ .

4. (1.3, Similar to Exercise 6) Given the graph of  $y = \sqrt{3x - x^2}$  to the left, use transformations to create a function whose graph is shown to the right.

