

MA 141 Reading Assignment 15–Sec 3.2

(1) State the product rule.

(2) Why is the derivative of the product of two functions *not* the product of the derivatives?

(3) State the quotient rule.

(4) Copy down the table of differentiation formulas. (Memorize these!!!)

MA 141 Reading Assignment 16–Sec 3.3

- (1) Define the following in words and in mathematical symbols:
 - (a) average rate of change of y with respect to x

 - (b) instantaneous rate of change of y with respect to x

- (2) Consider examples 1-3. Where do the rates of change occur in physics?

- (3) Consider examples 4-5. Where do the rates of change occur in chemistry?

- (4) Consider examples 6-7. Where do the rates of change occur in biology?

- (5) Consider example 8. Where do the rates of change occur in economics?

- (6) What are some other applications of rates of change in other sciences?

MA 141 Reading Assignment 17–Sec 3.4

(1) How are angles always measured? (radians or degrees?)

(2) State the derivatives of the trigonometric functions. Memorize these!!!!

(3) Why is it important to know the derivatives of trigonometric functions?