

Topic #8: Differentiation Rules (Math 31)

1. Goals (Section 3.3):
 - a. Differentiation rules.
2. Graph problems with “where diff”, “where ctn”, limits, etc
3. Differentiation Rules:
 - a. Constant Function rule
 - b. Power rule
 - c. Constant Multiplier
 - d. Sum Rule
 - e. Difference Rule
 - f. Product Rule (and quotient rule)
4. Derivatives of special functions:
 - a. Sin (is cos)
 - b. Cos (is $-\sin$)
 - c. Exp (mult by $\ln a$...)
 - d. Ln (divide by $\ln a$...)
5. Problems
 - a. Polynomials, etc (include product of binomials and negative/fraction exponents)
 - b. Section 3.3 (p. 264): 130, 131, 132.
 - c. Section 3.3 (p. 264): 138, 140, 142.