

MATERIAL TO STUDY FOR MATH 122, TEST 3

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Review Homework: pp. 157-158 # 1, 6, 7, 8, 13, 14, 23, 25, 27, 35, 37, 42, 44, 45, 49
p. 213 # 1, 2, 3, 4 (a,b,c,d), 7 (a,b,c,d), 8 (a, b, c, d) (not all new)

- derivatives of x^n , e^x , a^x , and $\ln x$
- derivatives of $g(x)^n$, $e^{g(x)}$, and $\ln g(x)$
- derivatives of $g(x)h(x)$ and $g(x)/h(x)$
- critical points and critical values and how to find them
- local maxima and local minima and how to find them
- the first and second derivative tests
- inflection points and how to find them
- locating points on a graph (critical points, local maxima, local minima, inflection points)
- locating points with a table of derivatives (critical points, local maxima, local minima)
- problems involving tangent lines
- problems involving cost and marginal cost
- problems involving rate of change (of money in an account, population, etc.)

Time to get Organized Again!!

<http://www.math.sc.edu/~filaseta/courses/Math122.html>