

# PRECALCULUS

## Thursday, Apr. 27

Handout—Limits in Graphical Form

Sec. 17-1 pp. 920-921. 26, 29, 33-35, 47, a, b

Sec. 17-2 pp. 928-929

Definition of the derivative: 24, a, b

Power Rule: 29, 39, c, d

$$(a) \lim_{x \rightarrow 25} \frac{x-25}{\sqrt{x}-5}$$

$$(b) \lim_{x \rightarrow 3} \frac{\sqrt{x+1}-2}{x-3}$$

$$(a) f(x) = 6x^3 - 2x + 5 \quad (b) f(x) = \frac{1}{x^2}$$

$$(c) f(x) = 5x^{77} - x^{-5} + \frac{3}{x} - \frac{1}{2x^4}$$

$$(d) f(x) = \sqrt[4]{x^7} - \sqrt[6]{x}$$

## Monday, May 1

Sec. 17-2 pp. 928-929

15, 16, 17, 18, 19, 32, 34, 36, 38, 41, a-e

$$(a) f(x) = (x^5 - 3x^4 + 4) \left( \frac{x^2+1}{x^3-2x} \right) \quad (b) f(x) = [8x^{-5} + (x^2 - 3x + 4)^7]^3$$

$$(c) f(x) = \frac{(x^4+5x)(3x^7-2x^2)}{6x^9+2x^3} \quad (d) f(x) = \left( \frac{8x-5}{3x^2+2x^9} \right)^{10} \quad (e) f(x) = (x^2 + 2)^4(3x^6 - 2x)^7$$

## Wednesday, May 3

Sec. 17-4 pp. 942-943

3, 7, 9, 11, 14, 23, 25, a-e

$$(a) \int (2x^3 - 1)(x^2 + 5) dx \quad (b) \int (4x^2 + 3)^2 dx$$

$$(c) \int \left( \frac{3}{x^2} + \frac{5}{x^4} \right) dx \quad (d) \int \left( \frac{t^5+2t^2-3}{\sqrt[3]{t}} \right) dt \quad (e) \int \left( \frac{3x^3-6x^2+5}{x^2} \right) dx$$

Sec. 17-5 pp. 948-949

11, 13, 25, 31, f, g

$$(f) \int_{-1}^2 \frac{3x+2x^4}{x^3} dx. \quad (g) \int_4^9 \frac{25x^3-1}{\sqrt{x}} dx$$

*Math Matters Due*

## Friday, May 5

Sec. 17-5 pp. 948-949

8, 9, 17, 21

Intro to Calculus Review

## Tuesday, May 9

# Intro to Calc Test

*Portfolios Due Thursday*

## FRACTALS

**Thursday, May 11**—Intro to Fractals Pt 1; Fractals & Chaos Appl. Wksht; Homework: Iteration #1

**Monday, May 15**—Intro to Fractals Pt 2, Scale Investigation; Homework: Study for Quiz

**Wednesday, May 17**—Finish Scale Investigation, Fractal Quiz & Journal Due