

CALCULUS

Background text includes: The Quotient Rule $\frac{d}{dx} \left(\frac{u}{v} \right) = \frac{v(du/dx) - u(dv/dx)}{v^2}$, The Product Rule $\frac{d}{dx} (uv) = v \frac{du}{dx} + u \frac{dv}{dx}$, Integration by Parts $\int u \frac{dv}{dx} = u \frac{dv}{dx} - \int \frac{du}{dx} v dx$, Implicit Differentiation $\frac{d}{dx} (y^n) = n y^{n-1} \frac{dy}{dx}$, and various other calculus formulas and graphs.

Friday, Sept. 1

Finding Limits from Graphs Handout
p. 111 1-6 p. 131 1-4

Sec. 2.3 pp. 76-77
28, 29, 41, 42, 43, 45, 47, 51, 52

Sec. 2.2 pp. 65-68
11, 16, 28-31

Wednesday, Sept. 6

Sec. 2.4 pp. 85-87
9, 11, 19, 21, 22b, 23a, 25, 27

Limits at Infinity Handout
1-4, 15, 19, 20, 23, 26, 27 & problems at right

a) $\lim_{x \rightarrow -\infty} \frac{\sqrt{36x^6 - 3x^3 + 2}}{4 - 3x^3 + 2x^2}$ b) $\lim_{x \rightarrow -\infty} (5 + 2x^2 - 3x^3)$
c) $\lim_{x \rightarrow -\infty} \frac{\sqrt[4]{2 - x^2 + 16x^4}}{1 - 8x}$ d) $\lim_{x \rightarrow \infty} (6x^2 - 5x^5 + 2)$

Friday, Sept. 8

Introduction to Limits of Special Functions

Limit Worksheet

**NO HOMEWORK
COUPONS**

Tuesday, Sept. 12

Asymptotes Handout

Continuity Handout

**Math
Matters
Due**

Thursday, Sept. 14

Calculating limits with CAS

Journal Due

Brief look at epsilon-delta definition
of limits

Review Limits

Tuesday, Sept. 19

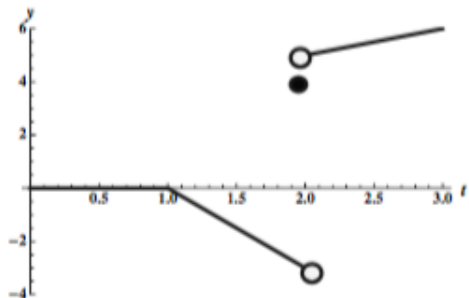
**Limits Test
Due**

ANSWERS

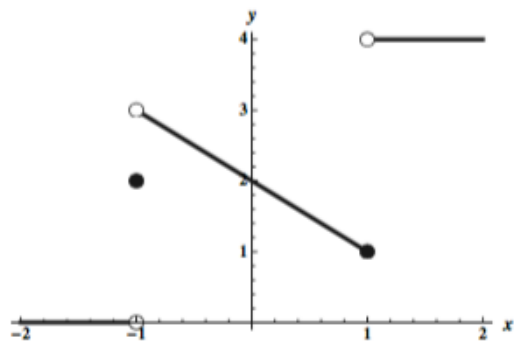
Sec. 2.2 pp. 65-68

16. Limit appears to be 2.

28. Many possible graphs



30. Many possible graphs



Sec. 2.3 pp. 76-77

28. -1

42. -5

52. $3a^2$