

AP Calculus
Summer Assignment, 2006
Mrs. Tierney

This summer assignment consists of topics that you should be familiar with. Mastery of these topics is essential for your success in AP Calculus so please give this assignment careful attention and adequate time to complete. All graphs should be done on the graph paper provided. Neatness, organization and thorough problem solving should be evident.

This assignment is due August 15, 2006. It should be returned to my mailbox no later than this date. If you choose to mail it in, it should be post marked no later than this date. If you mail it in, mail it to:

Cluny Tierney
Glen Ridge High School
200 Ridgewood Ave.
Glen Ridge, NJ 07028

Good Luck!

Section 1.1 page 7

10, 12, 14, 16, 20, 24, 26, 30, 34, 38

Section 1.2 page 17

6, 10, 30, 32, 34, 42, 44, 46, 50, 66

Section 1.6 page 48

1- 4 all, 8, 10, 12, 16, 18, 20, 22, 26- 32 even

Attached Worksheet

Name _____

AP Calculus

Summer Assignment

Complete your answers on this sheet.

Factor each.

1. $3x^2(4x - 12)^2 + x^3(2)(4x - 12)(4)$

2. $5(x^2 + 4)^2(2x)(x - 4)^4 + (x^2 + 4)^5(4)(x - 2)^3$

3. $3(2x - 1)^2(2)(x + 3)^{1/2} + (2x - 1)^3(\frac{1}{2})(x + 3)^{(1/2)}$

Simplify each.

1.
$$\frac{3(x + 2)^2(x - 3)^2 - (x + 2)^3(2)(x - 3)}{(x - 3)^4}$$

2.
$$\frac{2x(x + 6)^4 - x^2(4)(x + 6)^3}{(x + 6)^8}$$

3.
$$\frac{2(1 + x)^{1/2} - x(1 + x)^{(-1/2)}}{(x + 1)}$$

over

State the piecewise function for each absolute value.

1. $f(x) = |x + 2|$

2. $f(x) = |x| + 3$

3. $f(x) = |x - 3| - 1$

4. $f(x) = 2|x - 3|$

How do you feel like you did on the summer assignment? What areas do you think you need to most review of? Any thing else you want to tell me?