

# PRECALCULUS

**Wed., Sept. 21**

Sec. 2-2 pp. 104-106  
13, 14, 15, 17, 23, 25, 27, 50-53, 64-67,  
75, 80, a, b & c at right.

Polynomial Equations Handout

Find the real zeros using your calculator:

(Menu—Analyze Graph—Zero)

a)  $3x^3 - 39x^2 - 106.47x + 463.05$

Write the equation of a polynomial with the given roots.

b)  $-3, \frac{1}{2}, 4$       c)  $2, 4 + \sqrt{5}, 4 - \sqrt{5}$

**Fri., Sept. 23**

Sec. 2-5 p. 138 35, 40, a, b at right

$$(a) \frac{2}{x+2} + \frac{3}{x} = \frac{-x}{x+2} \quad (b) 1 = \frac{1}{1-y} + \frac{y}{y-1}$$

Sec. 2-6 c, d, e

$$(c) 5 + \frac{1}{x} > \frac{16}{x} \quad (d) \frac{4}{x+1} \leq \frac{3}{x-2} \quad (e) 1 + \frac{5}{a-1} < \frac{7}{6}$$

Simplifying Rational Expressions Handout

**Tues., Sept. 27**

Partial Fractions Handout #2-6

Sec. 2-1 pp. 92-93  
52, 54

**Thurs., Sept. 29**

Review Polynomial & Rational Functions

*Journal Due*

**Mon., Oct. 3**

## Polynomial & Rational Functions Test

**Sec. 2-1 pp. 92-93**

52. 2, 10

54. -1

**Sec. 2-2 pp. 104-106**

14.  $\lim_{x \rightarrow -\infty} f(x) = \infty$ ,  $\lim_{x \rightarrow +\infty} f(x) = +\infty$

50. No, there is a sharp turn at  $x = 2$

52. Yes

64. even, positive

66. odd, negative

80b.  $f(x) = -0.009x^3 - 0.230x^2 + 2.305x + 3.796$

c.  $f(x) = 0.012x^4 - 0.225x^3 + 0.978x^2 + 0.152x + 4.312$

d. Quartic function; It has a higher correlation coefficient and follows the appropriate end behavior.

a. -4.2, 2.5, 14.7

b.  $2x^3 - 3x^2 - 23x + 12 = 0$

c.  $x^3 - 10x^2 + 27x - 22 = 0$

**Sec. 2-5 p. 138**

40. 7, 1

a. -3

b.  $(-\infty, 1) \cup (1, \infty)$

**Sec. 2-6 p. 145**

c.  $(-\infty, 0) \cup (3, \infty)$

d.  $(-\infty, -1) \cup (2, 11]$

e.  $(-\infty, 1) \cup (31, \infty)$