

## Assignment #3-3

## Secondary 3 Honors

### PreCalculus Book:

Pg. A72 – A74 2, 6, 17, 20, 23, 55, 57, 59, 63, 81

Pg. 176 110, 112, 117

### Carnegie Book:

Pg. 279 #4 (a, b, c)

**Additional Problems:** Complete these problems on a separate sheet of paper.

1. Solve the inequalities

a.  $-3x^2(5x - 2)^3(x + 1)^2 \leq 0$

b.  $(x - 3)^2(x + 4)(x - 4) > 0$

2. Solve the inequality using your graphing calculator:  $\sqrt{2x^2 - 4x + 7} < -12x^2 + 8x + 15$

3. List the possible rational roots for the polynomial  $f(x) = x^3 - 4x^2 + 2x - 8$

4. Use the factor theorem to determine which of the possible roots from #3 are actually zeros for  $f(x)$ .

5. Given the two points  $(-5, 2)$  and  $(7, 6)$

a. Find the slope of the line between the two points

b. Find the equation of the line between the two points.  
Leave your answer in point-slope form.