Assignment #4-6 Secondary 3 Honors

PreCalculus Book:

Pg. 161 – 164 12, 18, 23, 37, 39, 43, 45, 46, 50, 86

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

1. Graph the polynomial function: $p(x)=(3x-2)(x+1)^2(2-x)^3$ Find end behavior, intercepts and crossing vs. bouncing zeros.

2. Use your graph from problem #1 to determine the intervals where $p(x) \leq 0$.

3. Solve the equations for x:

   a. $\frac{2x+1}{x-3}=\frac{4}{5}$ b. $x^2-7x+1=0$ c. $x^2-7x-8=0$

4. Graph the following without your calculator.

$$f(x)=\frac{x^3+3x^2+x+3}{x+2}$$

ACT Review:

1. What is the least common multiple of 70, 60, and 50 ?

   F. 60
   G. 180
   H. 210
   J. 2,100
   K. 210,000

2. Hot Shot Electronics is designing a packing box for its new line of Acoustical Odyssey speakers. The box is a rectangular prism of length 45 centimeters, width 30 centimeters, and volume 81,000 cubic centimeters. What is the height, in centimeters, of the box?

   A. 75
   B. 60
   C. 48
   D. 27
   E. 18

3. Four points, A, B, C, and D, lie on a circle having a circumference of 15 units. B is 2 units counterclockwise from A. C is 5 units clockwise from A. D is 7 units clockwise from A and 8 units counterclockwise from A. What is the order of the points, starting with A and going clockwise around the circle?

   F. A, B, C, D
   G. A, B, D, C
   H. A, C, B, D
   J. A, C, D, B
   K. A, D, C, B