## Graphing Calculator Section

- 1. The dimensions of a box is given as width of x 5, length of x 6 and height of x.
  - a) Write equation to model the volume.
  - b) Find the maximum volume that the box could contain.
  - c) Find the x value that will maximize the volume.
- 2. Find the relative minimum and maximum values of  $y = -2x^3 14x^2 + 2x + 84$  Include a window and sketch.

Non-Graphing Calculator Section

3. Given the polynomial, find the zeros, state any multiplicities, and sketch graph.

a) 
$$y = x(x+4)^3(x-3)$$

b) 
$$y = (x-2)(x+3)^2(x+1)^3$$

For each given polynomial,

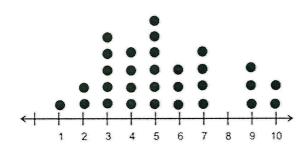
- a) Find the zeros of the function
- b) The Multiple and multiplicity if any
- c) Sketch the graph

4) 
$$y = x^4 - 10x^3 + 25x^2$$

5) 
$$y = 10x^3 - 15x^2$$

Stats Quiz Review

1) Use the dot plot below to answer questions a - d.



- a) Find the mean
- b) Find the median
- c) Find the range
- d) Find the mode.
- 2) Five tests were collected at random. Test 1 scored 86, test 2 scored 92, test 3 scored 78, test 4 scored 76. What was the score on test 5 if the mean of the tests was 82?