Let 
$$f(x) = x^4 + 6x^3 + 12x^2 + 8x + 1$$

- 1. Find the critical points of f. (Hint: One is x = -2)
- 2. On which intervals is *f* increasing? decreasing?
- 3. Find the inflection points of f
- 4. On which intervals is *f* concave up? concave down?
- 5. Sketch a graph of y = f(x), and verify your graph by using technology