

### **Numeric/Symbolic Exercises (Week 4):**

**\*\*Please remember to comment your code and label your graphs!**

1. Define the following function **numerically**, then apply the following exercises to it

$$y = 3x^3 + 42x^2 - 13x + 7$$

- a. Evaluate the function at  $X = 77$
  - b. Evaluate the function from  $X = 0$  to  $X = 10$
2. Define the following function, but this time **symbolically**, then apply the following exercises.

$$f(X, Y) = 7xy - 12x^2 + 8y^4$$

- a. Solve the function at  $X = 2$ ,  $Y = 4$
- b. Evaluate the function on the range of  $Y = [0, 1]$  with 100 points while keeping  $X = 1$ .
  - i. Graph the values from the previous exercise where the answer to b is your y-values going from 0=>99