University of Regina
Software Systems Engineering

Winter term, March 2018   ENSE-350
 Programming Assignment# 06

A function $f(x) = 2 - 5x + 10x^2 + \frac{1}{2}x^3$ is shown in Figure 1. Write a program that will numerically integrate this function from -10 to $+10$ using multiple segment trapezoidal rule. [Hint: This lab is asking to evaluate the following integral:

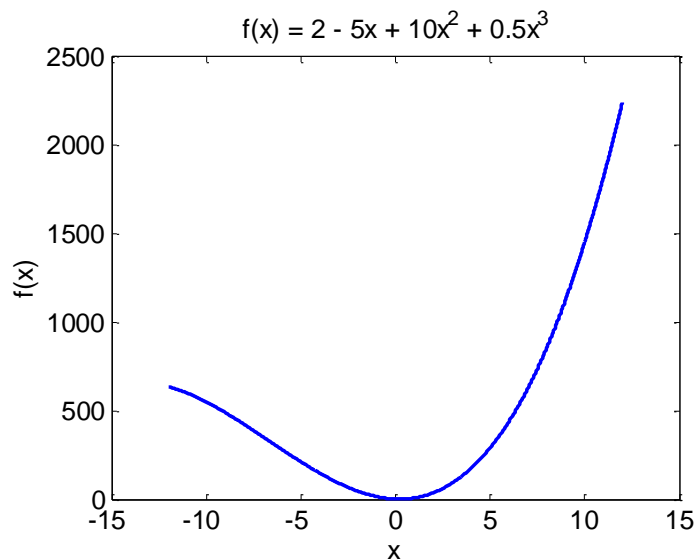$$\int_{-10}^{+10} f(x)dx$$

]

Figure 1

The number of segments should be an input to the program. Determine the true percent relative error and plot it as a function of the number of segments n.

[For plotting you may use MS Excel]