Math 414 Analysis II
Problem Set 3

Due Friday February 6

Do the following problems from Abbott's *Understanding Analysis*
    Exercise 7.5.2
    Exercise 7.5.4
    Exercise 7.5.7

1) Suppose $f : [a, b] \to \mathbb{R}$ is continuous. Let

$$G(x) = \int_a^x x f(t) \, dt.$$

Find $G'(x)$.

Bonus Problem 1 (Turn in separately by Friday February 13)
    Exercise 7.5.8