Homework 13
Due: Friday, December 6̶ 2

1. [F]4.1.6

2. [F]4.1.7

3. Given an example of a function $f : [0,1]$ such that f is integrable, but the function

$$F(x) = I_0^x(f) = \int_0^x f(t)dt$$

   is not differentiable.

4. [F]4.2.1. (HINT: As of November 18, we haven't started integrating in $\mathbb{R}^2$ yet. But if you write down a proof of the corresponding statements in $\mathbb{R}^1$, they will generalize instantly to $\mathbb{R}^n$.)

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