Assignment 4 (for discussion and quizzing at tutorial week of Feb 3, but not for hand-in)

- Read Lecture 4 and sections 3.1-3.3 from the textbook.
- Practice problem set:
- 3.1: # 17, 19, 23, 26, 28, 30, 32, 33, 35, 43, 53, 55, 67, 69, 73, 75 p 181-183
- 3.2: # 5, 9, 11, 15, 17, 19, 23, 25, 27, 29, 45, 51 p 189-190
- 3.3: # 5, 9, 13, 15, 17, 19, 39, 41, 44, 47, 48, 49, 53 (c) p 197-198

<u>Extra questions</u>:

1. Given $f(x) = 3x^2 - e^x$. Find the second derivative of $G(x) = (1 - \sqrt{x})f''(x)$.

2. <u>Claim</u>: If $f + g$ is differentiable at a, then f and g must be differentiable at a. Either prove or give a counterexample.