Homework Set 5

DUE: MARCH 4, 2019 (AT THE BEGINNING OF CLASS)

To be handed in

Please write your solutions to Problem 1 on a single sheet of paper!

1. Compute the following derivatives:

   a) $\dfrac{\mathrm{d}}{\mathrm{d}x}\left(3x^5 - 4x^2 + 2x - 3\right)$

   b) $\dfrac{\mathrm{d}}{\mathrm{d}x}\left(7\sqrt{x} + \dfrac{\sqrt{7}}{\sqrt{x}} + \sqrt{7}\right)$

   c) $\dfrac{\mathrm{d}}{\mathrm{d}\theta}\left(2\sin\theta + 4\cos\theta\right)$

   d) $\dfrac{\mathrm{d}}{\mathrm{d}t}\left(2t^4 - e^t + 6\right)$

   e) $\dfrac{\mathrm{d}}{\mathrm{d}t}\left(\dfrac{1}{t^8} + 4\sin t + 2t^{3/5}\right)$

3. Textbook (5th edition) Section 3.2, Exercises 5-14, 23-26, 41-44, 55-56, 69-72, 111, 112.