

Homework Set 5

DUE: MAR 9, 2020 (AT THE BEGINNING OF CLASS)

To be handed in:*Please write your solution to Problem 1 on a single sheet of paper!*

1. Compute the following partial derivatives of the function

$$f(x, y, z) = \sqrt{x^2 - y^2} + yz \sin(x^2 z)$$

- a) $\frac{\partial f}{\partial x}$
- b) $\frac{\partial f}{\partial y}$
- c) $\frac{\partial f}{\partial z}$
- d) $\frac{\partial^2 f}{\partial x \partial z}$
- e) $\frac{\partial^2 f}{\partial y \partial z}$

NOT to be handed in (but recommended for you to practice with):

3. Textbook (5th edition) Section 13.2, Exercises 9-16, 27-29
4. Textbook (5th edition) Section 13.3, Exercises 9-15, 65-67, 122, 125, 126