## Homework Set 6

Due: Nov 5, 2018 (AT THE BEGINNING OF CLASS)

## To be handed in

Please write your solutions to Problem 1 a)-d) on only 1 sheet of paper.

1. All edges of a 3-dimensional cube are expanding at a rate of $6 \mathrm{~cm} / \mathrm{s}$.
a) How fast is its volume changing when each edge is 2 cm long?
b) How fast is its volume changing when each edge is 10 cm long?
c) How fast is its surface area changing when each edge is 2 cm long?
d) How fast is its surface area changing when each edge is 10 cm long?
2. Textbook (5th edition) Section 3.7, Exercises $13,16,22,23,24,25,29,31,33,46$
