

# Homework 1

FYS 129: Mathematics and Finances

**No calculators allowed unless mentioned otherwise.**

1) Compute:

(a)  $3^3$

(b)  $2^{-3}$

(c)  $25^{1/2}$

(d)  $(16/81)^{3/2}$

2) If  $4^x = 64$ , then what is  $x$ ?

3) If  $a^b = 4$  and  $a^c = 3$ , then compute:

(a)  $a^{2c}$

(b)  $a^{b/2}$

(c)  $a^{b+c}$

[**Hint:** Use the basic properties of exponents.]