## Homework 2

## FYS 129: Mathematics and Finances

## No calculators allowed unless mentioned otherwise.

1) Compute:
(a) $\log _{3}(27)$
(b) $\log _{2}(1 / 8)$
(c) $\log _{4}(32)$
(d) $\log _{2}(1)$
2) If $2^{x}=3$, use your calculator [it is OK in this problem] to find an approximation of $x$.
3) If $\log _{27}(a)=2$, then what is $\log _{3}(a)$ ?
4) If $\log _{a}(x)=2$ and $\log _{a}(y)=3$, then compute:
(a) $\log _{a}(x \cdot y)$
(b) $\log _{a}(\sqrt{x})$
(c) $\log _{a}(1 / y)$
