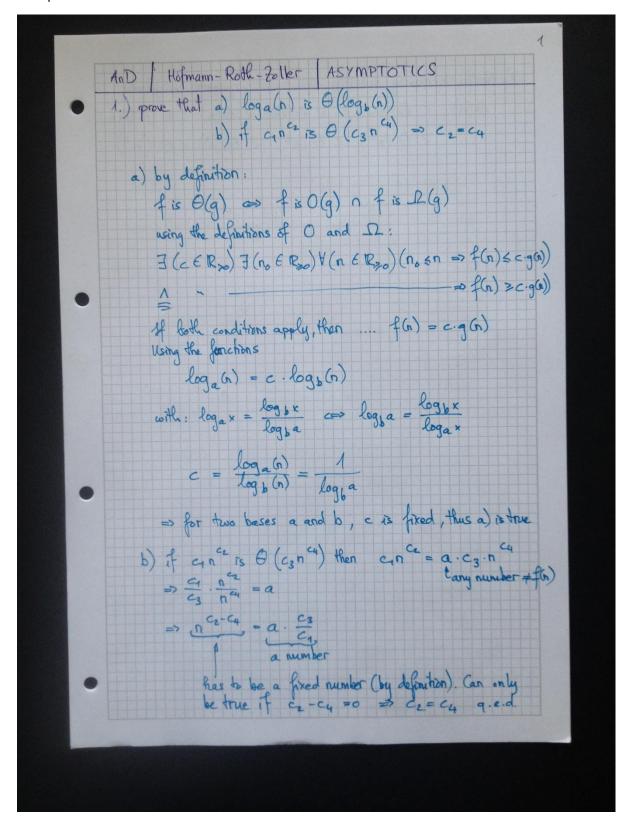
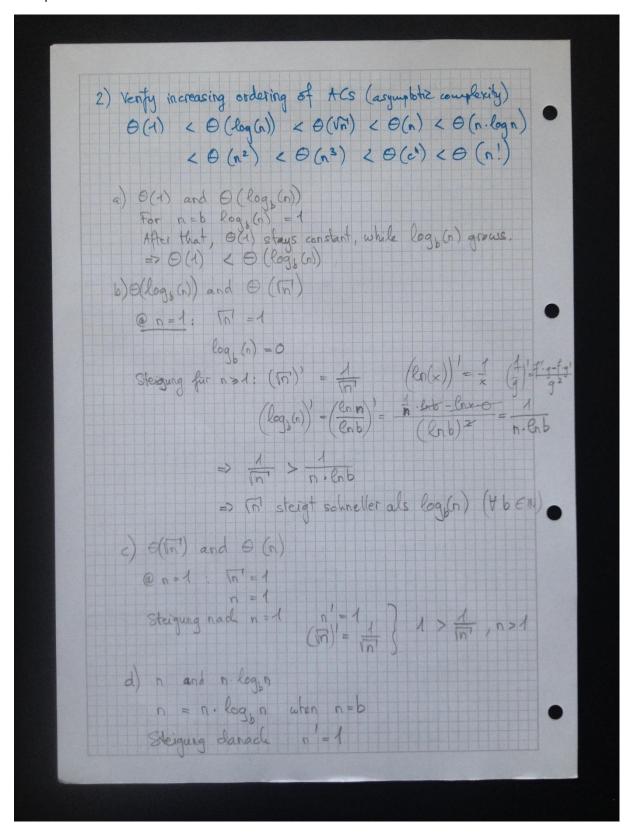
Tasks (graded teamwork): please,

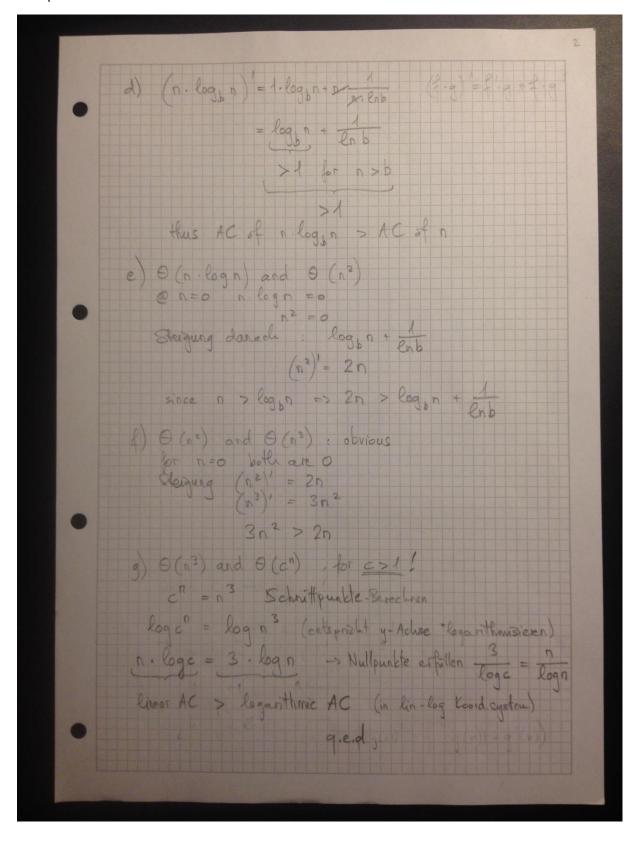
- prove that
 - 1.1 $\log_a(n)$ is $\Theta(\log_b(n))$ (bases are asymptotically irrelevant)
 - 1.2 if $c_1 n^{c_2}$ is $\Theta(c_3 n^{c_4})$ then $c_2 = c_4$ (constant exponents are relevant)
- 2. verify the increasing ordering of these ACs (trick: log-log;-)
- 3. what are the ACs of our summation laws on Page 35?

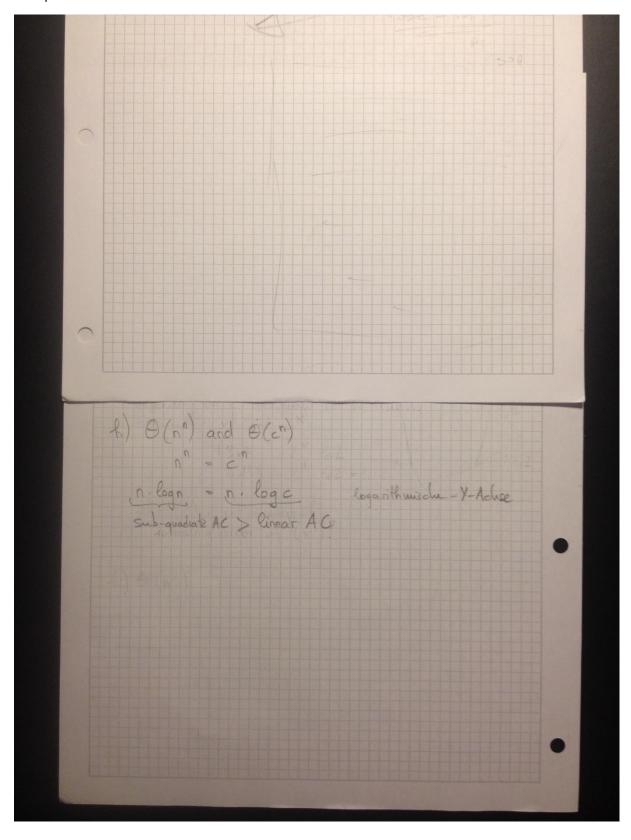
Hint (logarithm laws): recall that

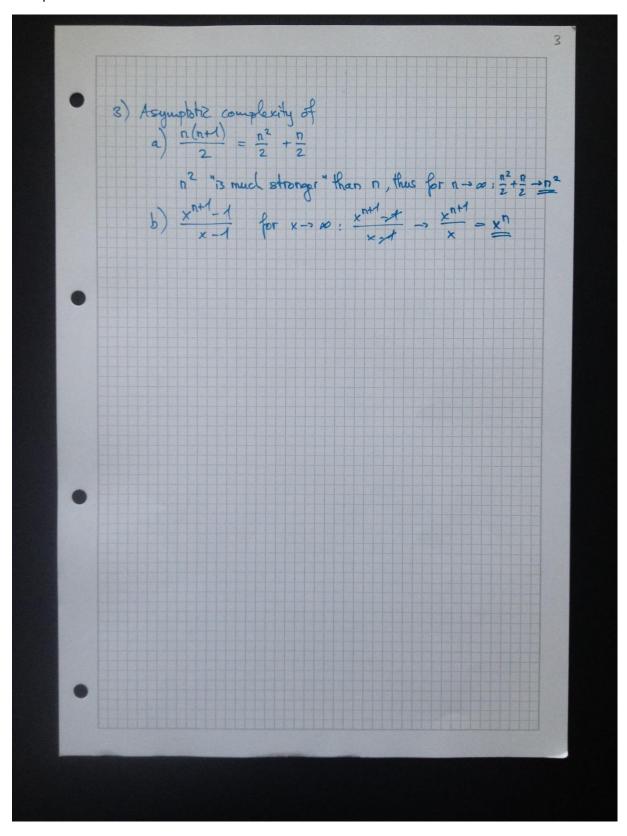
$$\begin{aligned}
\log_a(xy) &= \log_a x + \log_a y \\
\log_a x^y &= y \log_a x \\
x^{\log_a y} &= y^{\log_a x}
\end{aligned} \qquad \log_a x = \frac{\log_b x}{\log_b a}$$











Task 2 – Graphical representation: (zoomed version)

