

Grading Key for Homework 6

Instructor: Dieter van Melkebeek

Problem 1 (7 points)

- 1 pt for stating and proving each relationship

Problem 2 (6 points)

- Each subdivision carries 3 points

Problem 3 (7 points)

- Subdivision (a) carries 2 points
- Subdivision (b) carries 5 points

Common Mistakes

- In problem 1, the first expression was $2^{2\sqrt{\log(n)}}$. Some students mistook $2^{2\sqrt{\log(n)}}$ for $2^{(2*\sqrt{\log(n)})}$, which led to this expression being out of order in comparison to the rest of the functions.
- For problem 3, some students claimed $c=1$ and proved an upper bound, but then only proved a lower bound of $c=0$.