

Assessment

Assignment can be used to improve your grade

- ▶ If you obtain 50% of the points on the first half **and** 50% on the second half of assignments your grade will improve according to the following function

$$f(x) = \begin{cases} \frac{1}{10} \text{round} \left(10 \left(\frac{\text{round}(3x)-1}{3} \right) \right) & 1 < x < 4 \\ x & \text{otw.} \end{cases}$$

- ▶ It will improve by 0.3 or 0.4, respectively.

Examples:

- ▶ 3.3 → 3.0
- ▶ 2.0 → 1.7
- ▶ 3.7 → 3.3
- ▶ 1.0 → 1.0
- ▶ > 4.0 no improvement

1 Contents

- ▶ Foundations
 - ▶ Machine models
 - ▶ Efficiency measures
 - ▶ Asymptotic notation
 - ▶ Recursion
- ▶ Higher Data Structures
 - ▶ Search trees
 - ▶ Hashing
 - ▶ Priority queues
 - ▶ Union/Find data structures
- ▶ Cuts/Flows
- ▶ Matchings

2 Literatur

- ▶ Alfred V. Aho, John E. Hopcroft, Jeffrey D. Ullman:
The design and analysis of computer algorithms,
Addison-Wesley Publishing Company: Reading (MA), 1974
- ▶ Thomas H. Cormen, Charles E. Leiserson, Ron L. Rivest,
Clifford Stein:
Introduction to algorithms,
McGraw-Hill, 1990
- ▶ Michael T. Goodrich, Roberto Tamassia:
Algorithm design: Foundations, analysis, and internet examples,
John Wiley & Sons, 2002

2 Literatur

- ▶ Volker Heun:
Grundlegende Algorithmen: Einführung in den Entwurf und die Analyse effizienter Algorithmen,
2. Auflage, Vieweg, 2003
- ▶ Jon Kleinberg, Eva Tardos:
Algorithm Design,
Addison-Wesley, 2005
- ▶ Donald E. Knuth:
The art of computer programming. Vol. 1: Fundamental Algorithms,
3. Auflage, Addison-Wesley Publishing Company: Reading (MA), 1997