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Exercises

Algorithm theory

Winter term 2008/09

Exercise sheet 9

TASK 1 (1 point)**:**

Compute the optimal *Parenthesization* of a *Matrix Chain Multiplication* consisting of 6 matrices with dimensions specified by the sequence $(6, 10, 4, 13, 5, 25, 8)$. Use the method from the lecture and outline the intermediate results.

TASK 2 (1 point)**:**

Given a set of denominations $\{m_1, m_2, ..., m_k\}$ for some coins. Write an algorithm that checks if a value x can be paid out by using these coins. Hint: create a boolean table T[b] that indicates whether value b can be paid out.