

CS 331: Algorithms and Complexity (Spring 2024)
Unique Number: 50930, 50935 50940, 50945

Assignment 3 - Solution

Due on Thursday, 8 February, by 11.59pm

Problem 1: Short Answer Section

(10 pts) True or false. If true, briefly justify, otherwise, provide a counter example . When justifying, restrict answers to no more than a few sentences.

1. **(1 pt)** True
2. **(2 pts)**
3. **(2 pts)**
4. **(2 pts)**
5. **(3 pts)**

Problem 2

(10 points)

1. (Smallest duration first) Pick task i that has the minimum duration $t(i)$, or
2. (Most valuable first) Pick task i that has maximum $p(i)$, or
3. (Maximum time-scaled value first) Pick task i that has maximum $p(i)/t(i)$.

Problem 3

(10 points)