Homework 5 (24 points)

Part 1 - Scheduling with non-preemptive EDF

1. Apply Jeffay et al.'s schedulability test for non-preemptive EDF to the following task set, in which each task is represented by (T, C): (10 points)
{ (5, 1), (7, 4), (18, 4) }
Carry the test out until you have tested each value or until the test fails. Show your work.

2. Apply Jeffay et al.'s schedulability test for non-preemptive EDF to the following task set, in which each task is represented by (T, C): (10 points)
{ (4, 2), (6, 1), (19, 2) }
Carry the test out until you have tested each value or until the test fails. Show your work.

Part 2 - Reading Questions

1. Under the Rate Monotonic scheduling algorithm, which of the following tasks would have the highest priority? Tasks are represented as (φ, T, C): (2 points)
{ (0, 7, 1), (2, 9, 3), (0, 5, 1), (1, 6, 1) }

2. Under the Deadline Monotonic scheduling algorithm, which of the following tasks would have the highest priority? Tasks are represented as (φ, T, C, D): (2 points)
{ (0, 7, 1, 4), (2, 9, 3, 8), (0, 5, 1, 5), (1, 6, 1, 6) }

Feedback

1. How much time did you spend completing this assignment (ignoring interruptions)?
2. How much time did you spend doing the assigned reading (ignoring interruptions)?
3. Any other feedback?