Practice for Periodic Task Scheduling (Chapter 3)

- Try solving the following exercises from the textbook:
  3.1, 3.3, 3.4.

- The solutions are provided at the end of the book.

Practice for Periodic Task Scheduling (Chapter 4)

- Try solving the following exercises from the textbook:
  4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7

- The solutions are provided at the end of the book.

Practice for Fixed Periodic Servers (Chapter 5)

- Try solving the following exercises from the textbook:
  5.2, 5.3, 5.5

- The solutions are provided at the end of the book.

Practice for Dynamic Periodic Servers (Chapter 6)

- Try solving the following exercises from the textbook:

6.3, 6.4, 6.5, 6.6, 6.7

- The solutions are provided at the end of the book.

Practice for Non Preemptive Scheduling (1/3) (Chapter 8 of textbook)

- Try solving the following exercises from the textbook:

8.1 and 8.2

- The solutions are provided at the end of the book.

Practice for Non Preemptive Scheduling (2/3)

- Consider the following set of periodic tasks:

	C_i	T_i
τ_1	3	6
τ_2	3	8
τ_3	1	23
τ_4	2	30

- (a) What is the maximum lateness of this task under RM scheduling?

- (b) When switching to non-preemptive RM scheduling the self-pushing phenomenon complicates matters and may require the analysis to extend beyond the first period of a task.
  - (b1) Report how many periods we need to consider for the above tasks.
  - (b2) Report the worst-case response times for the four tasks and conclude if the task set is feasible.

Practice for Non Preemptive Scheduling (3/3)

- Consider the following set of periodic tasks:

	C_i	T_i
τ_1	4	6
τ_2	3	10
τ_3	1	30

- (a) Name two advantages of non-preemptive scheduling.
- (b) Explain the self-pushing phenomenon.
- (c) One of the complications with RM scheduling of non-preemptive tasks is that the worst case response time of a task might not occur in the first period when considering the critical instant. Explain why the lowest-priority task, however, will always encounter its worst-case response in the first period.
- (d) Determine the feasibility of the task set under plain, preemptive RM scheduling.