

2. This problem studies fixed-priority scheduling. Consider two tasks to be executed periodically on a single processor, where task 1 has period $T_1 = 4$ and task 2 has period $T_2 = 6$.
 - (a) Let the WCET of task 1 be $C_1 = 1$. Find the maximum value for the WCET C_2 of task 2 such that RMS is feasible.
 - (b) Again let the WCET of task 1 be $C_1 = 1$. Let non-RMS be a fixed-priority schedule that is not RMS. Find the maximum value for the WCET C_2 of task 2 such that non-RMS is feasible.
 - (c) For both your solutions to (a) and (b) above, find the processor utilization. Which is better?
 - (d) For RMS, are there any values for C_1 and C_2 that yield 100% utilization? If so, give an example.
3. This problem studies dynamic-priority scheduling. Consider two tasks to be executed periodically on a single processor, where task 1 has period $T_1 = 4$ and task 2 has period $T_2 = 6$. Let the deadlines for each invocation of the tasks be the end of their period. That is, for task 1, the first invocation has deadline 4, the second has deadline 8, etc.
 - (a) Let the WCET of task 1 be $C_1 = 1$. Find the maximum value for the WCET C_2 of task 2 such that EDF is feasible.
 - (b) For the value of C_2 that you found in part (a), compare the EDF schedule against the RMS schedule. Which schedule has less preemption?