# University of Newcastle
# School of Electrical Engineering and Computer Science

## COMP2240 - Operating Systems
## Workshop 3 (Additional Problem)
## Topics: Scheduling

The traditional UNIX scheduler enforces an inverse relationship between priority numbers and priorities: the higher the number, the lower the priority. The scheduler recalculates process priorities once per second using the following function:

*Priority = (recent CPU usage / 2) + base*

where *base = 60* and recent CPU usage refers to a value indicating how often a process has used the CPU since priorities were last recalculated.

Assume that recent CPU usage is *40* for process *P1*, *18* for process *P2*, and *10* for process *P3*.

a) What will be the new priorities for these three processes when priorities are recalculated?
b) Based on this information, does the traditional UNIX scheduler raise or lower the relative priority of a CPU-bound process?

Answer:

a) The priorities assigned to the processes are 80, 69, and 65 respectively.
b) The scheduler lowers the relative priority of CPU-bound processes.