Scheduling In Linux 2.6 Kernel

- ☺ $O(1)$ — Time for finding a task to execute depends not on *the number of active tasks* but instead on *the number of priorities*
- ☺ Each CPU has its own *runqueue*, and schedules itself independently; better cache efficiency
- The job of the scheduler is simple — Choose the task on the highest priority list to execute

How to know there are processes waiting in a priority list?

A priority bitmap (5 32-bit words for 140 priorities) is used to define when tasks are on a given priority list.

- `find-first-bit-set` instruction is used to find the highest priority bit.