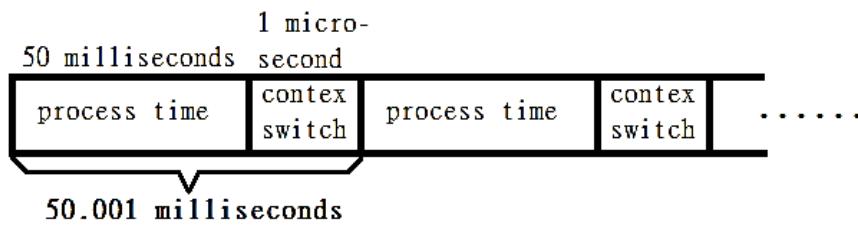


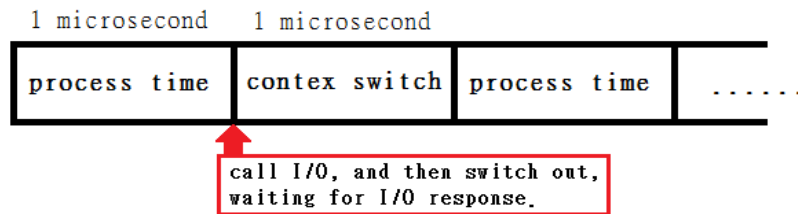
14. 50 milliseconds = 50×10^{-3} seconds, 1 microsecond = 10^{-6} seconds



So $1 / (50.001 \times 10^{-3}) = 19.999 \approx 20$, there is almost 20 processes can the machine service in a single second.

The fraction of the time spent on performing processes is: $50 / 50.001 = 0.999$

If each process executed an I/O request after only a microsecond of its time slice:



The fraction will become: process time / total time spent
 $= 1 \text{ microsecond} / 2 \text{ microsecond} = 0.5$
 So, only half of the machine time is spent on performing processes.