# How Multiprogramming helps the CPU to be idle for as little time as possible

| Process | TIME -------------------------------------------------------------------------------------------------------------------------------> |
|---------|------|
| P1 | |
| P2 | |
| P3 | |
| P4 | |
| P5 | |

| CPU usage | | | | | IDLE | | | | |
|-----------|--|--|--|--|------|--|--|--|--|

**Key**

☐ CPU Cycles

☐ I/O Cycles