

_ Range: 0 – 20

_ Default value when create a process: 0

_ How to test: (Warning no Round Robin for same priority number process)

+ Start “make qemu”

+ Enter: “pi &” 4 times to create 4 testing processes

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

1      init  SLEEPING      0
2      sh    SLEEPING      0
12     ps    RUNNING      0
4      pi    RUNNABLE      5
6      pi    RUNNING      0
9      pi    RUNNING      0
$ pi &
$ ps
pid      name    state      priority
-----
1        init    SLEEPING    0
2        sh     SLEEPING    0
15       ps     RUNNING     0
4        pi     RUNNABLE    5
6        pi     RUNNING     0
9        pi     RUNNABLE    0
14       pi     RUNNING     0
$ ps
pid      name    state      priority
-----
```

+ Enter: "ps" to see the table

+ Enter: "set 4 6" and "set 8 5" to set the first and third pi process to lower priority

```
$ pi &
$ pi &
$ ps
pid      name    state      priority
-----
1        init    SLEEPING    0
2        sh     SLEEPING    0
11       ps     RUNNING     0
4        pi     RUNNING     0
6        pi     RUNNING     0
8        pi     RUNNABLE    0
10       pi     RUNNABLE    0
$ set 4 6
$ set 8 6
$ ps
pid      name    state      priority
-----
1        init    SLEEPING    0
2        sh     SLEEPING    0
14       ps     RUNNING     0
4        pi     RUNNABLE    6
6        pi     RUNNING     0
8        pi     RUNNABLE    6
10       pi     RUNNING     0
$
```

+ See the result, second and fourth pi process are RUNNING

_ Unsolvable bug:

+ Set the priority like this and the process with pid = 10 will not get a RUNNING state

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

pid      name    state    priority
-----
1        init    SLEEPING 0
2        sh      SLEEPING 0
51       ps      RUNNING  0
4        pi      RUNNING  5
6        pi      RUNNABLE 5
8        pi      RUNNING  0
10       pi      RUNNABLE 5
$ ps
pid      name    state    priority
-----
1        init    SLEEPING 0
2        sh      SLEEPING 0
52       ps      RUNNING  0
4        pi      RUNNING  5
6        pi      RUNNABLE 5
8        pi      RUNNING  0
10       pi      RUNNABLE 5
$
```