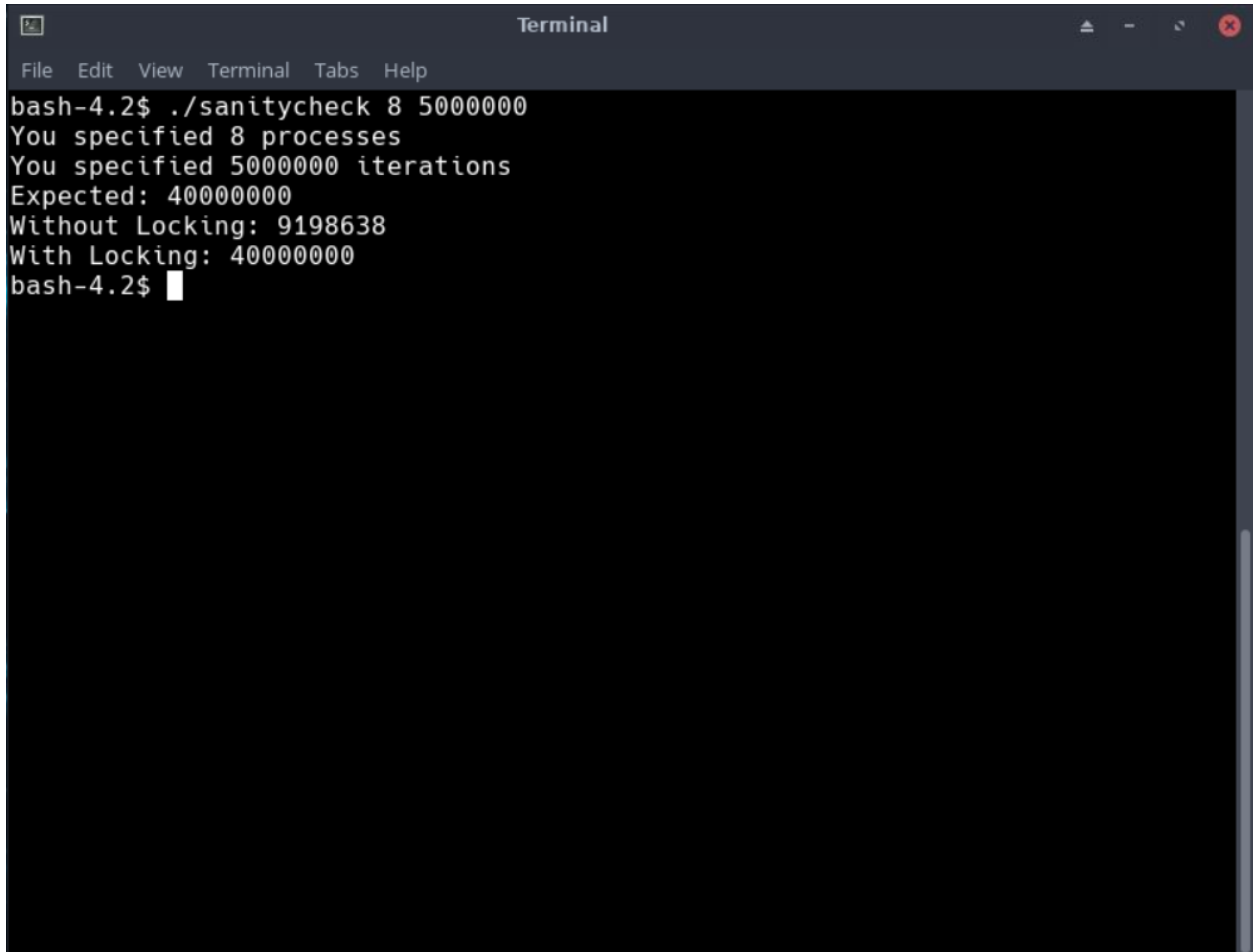


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### Spinlock sanity check

A terminal window titled "Terminal" with a menu bar (File, Edit, View, Terminal, Tabs, Help) and standard window controls. The terminal shows the execution of the command `./sanitycheck 8 5000000`. The output indicates that 8 processes were specified and 5,000,000 iterations were performed. The results show that the expected value was 4,000,000,000, which was achieved both without and with locking, with the "Without Locking" value being 919,8638.

```
bash-4.2$ ./sanitycheck 8 5000000
You specified 8 processes
You specified 5000000 iterations
Expected: 400000000
Without Locking: 9198638
With Locking: 400000000
bash-4.2$
```

## Shell game

```
Terminal
File Edit View Terminal Tabs Help

bash-4.2$ ./shellgame.exe 4 500000
VCPUs 0 starting, pid 832
VCPUs 1 starting, pid 833
VCPUs 2 starting, pid 834
VCPUs 3 starting, pid 836
Main process spawned all children, waiting
VCPUs 4 starting, pid 838
VCPUs 5 starting, pid 840
Child 0 (pid 832) done, signal handler was invoked 61342 times
VCPUs 0 done
Child pid 832 exited w/ 0
Child 2 (pid 834) done, signal handler was invoked 69262 times
VCPUs 2 done
Child pid 834 exited w/ 0
Child 4 (pid 838) done, signal handler was invoked 72809 times
Child 1 (pid 833) done, signal handler was invoked 63899 times
VCPUs 4 done
VCPUs 1 done
Child pid 838 exited w/ 0
Child pid 833 exited w/ 0
Child 5 (pid 840) done, signal handler was invoked 78522 times
Child 3 (pid 836) done, signal handler was invoked 80435 times
VCPUs 5 done
VCPUs 3 done
Child pid 840 exited w/ 0
Child pid 836 exited w/ 0
Sem #    val      Sleeps  Wakes
0         4
VCPUs 0          61342    61342
VCPUs 1          63899    63899
VCPUs 2           0         0
VCPUs 3           0         0
VCPUs 4           0         0
```

```
Terminal
File Edit View Terminal Tabs Help

Child 1 (pid 833) done, signal handler was invoked 63899 times
VCPUs 4 done
VCPUs 1 done
Child pid 838 exited w/ 0
Child pid 833 exited w/ 0
Child 5 (pid 840) done, signal handler was invoked 78522 times
Child 3 (pid 836) done, signal handler was invoked 80435 times
VCPUs 5 done
VCPUs 3 done
Child pid 840 exited w/ 0
Child pid 836 exited w/ 0
Sem #    val    Sleeps  Wakes
0         4
VCPUs 0          61342    61342
VCPUs 1          63899    63899
VCPUs 2           0         0
VCPUs 3           0         0
VCPUs 4           0         0
VCPUs 5           0         0
1         4
VCPUs 0           0         0
VCPUs 1           0         0
VCPUs 2          69262    69262
VCPUs 3          80435    80435
VCPUs 4           0         0
VCPUs 5           0         0
2         4
VCPUs 0           0         0
VCPUs 1           0         0
VCPUs 2           0         0
VCPUs 3           0         0
VCPUs 4          72809    72809
VCPUs 5          78522    78522
bash-4.2$
```