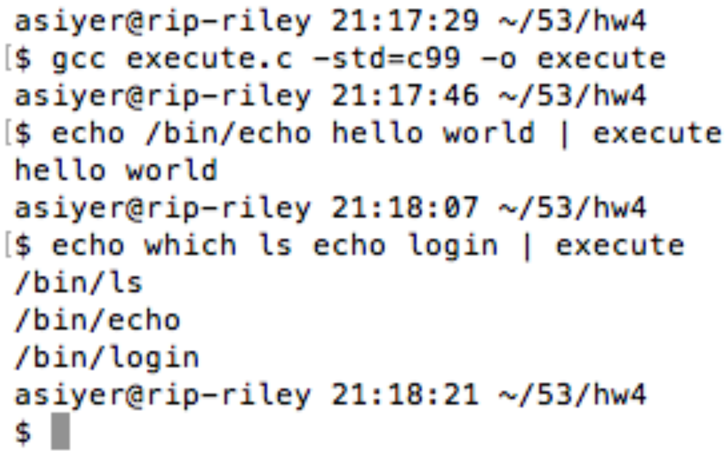
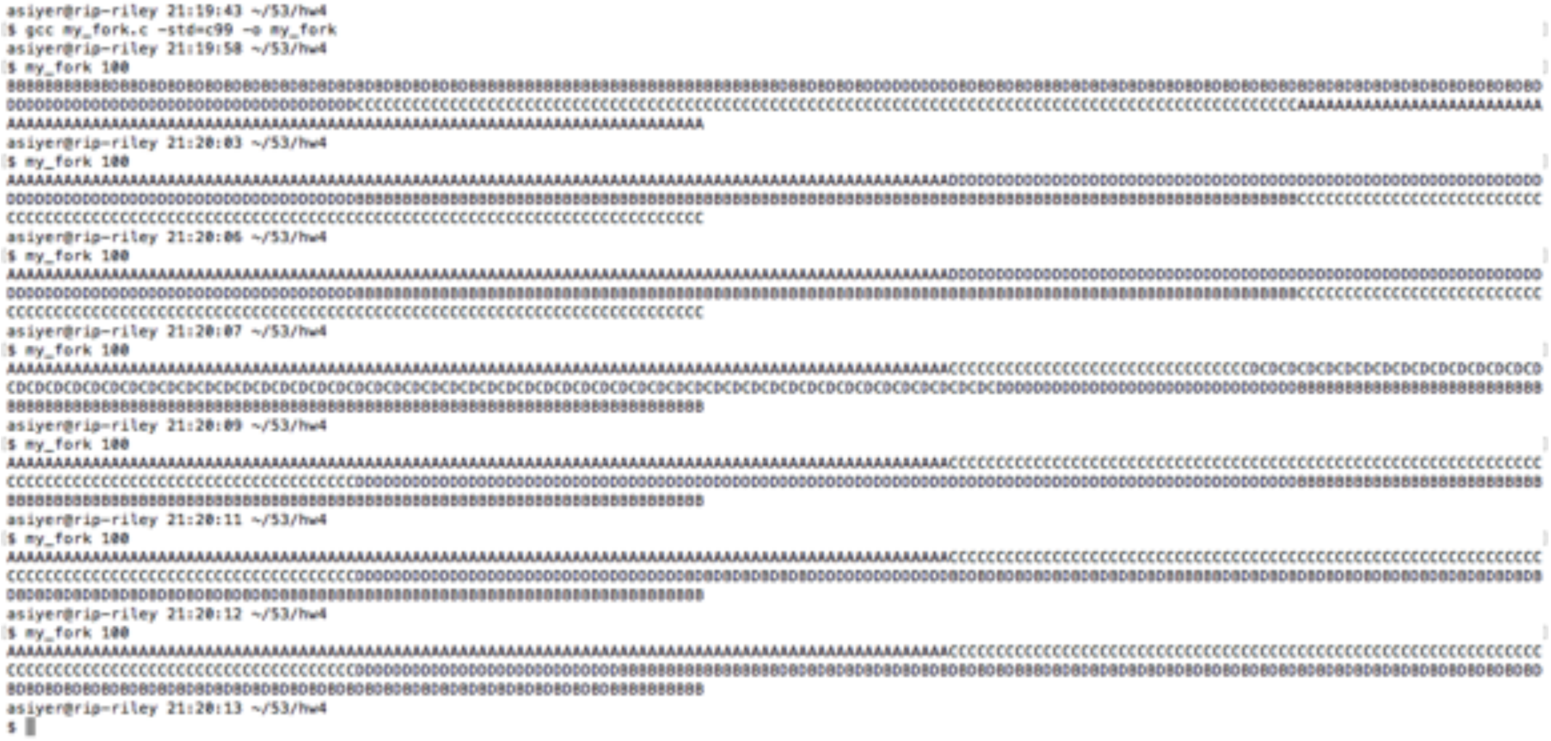
Problem 1)



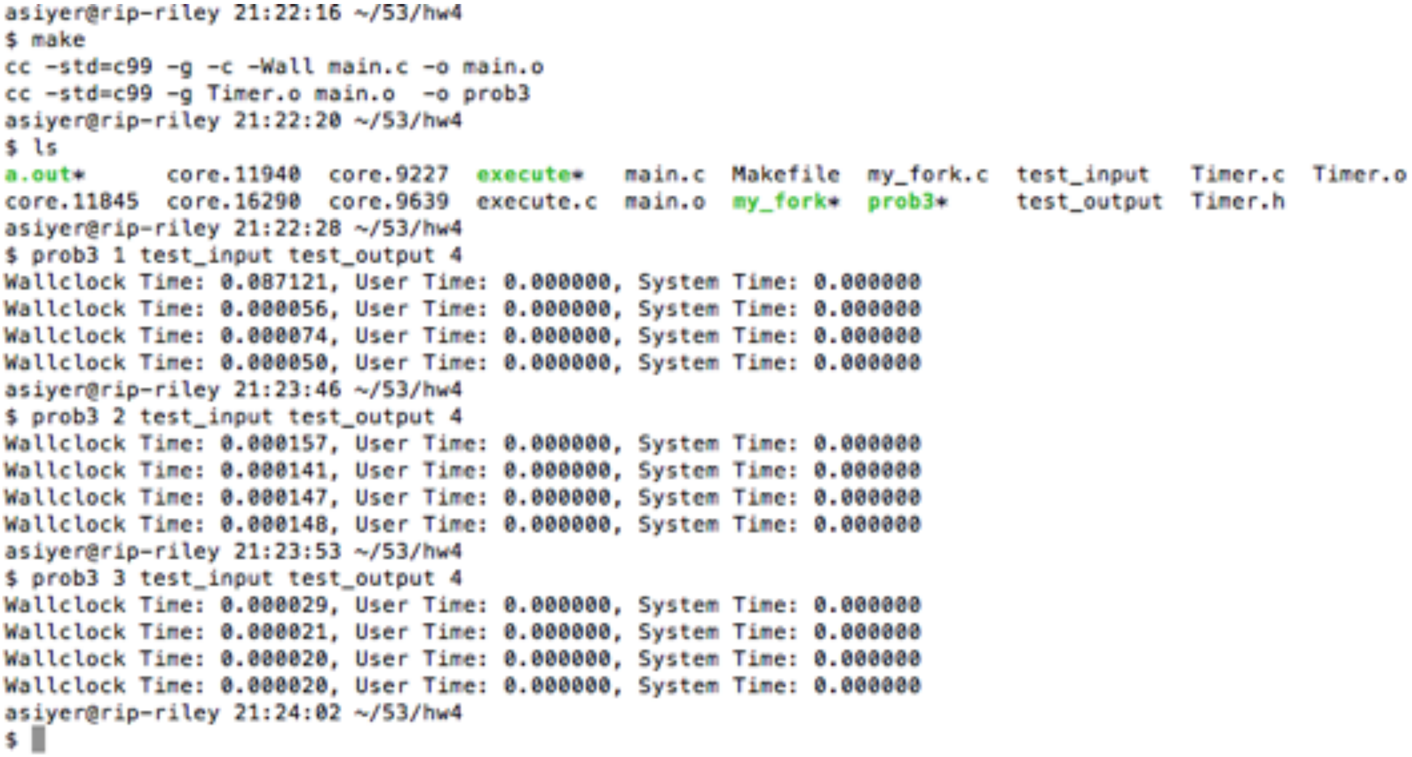
```
asiyer@rip-riley 21:17:29 ~/53/hw4
$ gcc execute.c -std=c99 -o execute
asiyer@rip-riley 21:17:46 ~/53/hw4
$ echo /bin/echo hello world | execute
hello world
asiyer@rip-riley 21:18:07 ~/53/hw4
$ echo which ls echo login | execute
/bin/ls
/bin/echo
/bin/login
asiyer@rip-riley 21:18:21 ~/53/hw4
$ 
```

Problem 2)



```
asiyer@rip-riley 21:19:43 ~/53/hw4
$ gcc my_fork.c -std=c99 -o my_fork
asiyer@rip-riley 21:19:58 ~/53/hw4
$ my_fork 100
asiyer@rip-riley 21:20:03 ~/53/hw4
$ my_fork 100
asiyer@rip-riley 21:20:06 ~/53/hw4
$ my_fork 100
asiyer@rip-riley 21:20:07 ~/53/hw4
$ my_fork 100
asiyer@rip-riley 21:20:09 ~/53/hw4
$ my_fork 100
asiyer@rip-riley 21:20:11 ~/53/hw4
$ my_fork 100
asiyer@rip-riley 21:20:12 ~/53/hw4
$ my_fork 100
asiyer@rip-riley 21:20:13 ~/53/hw4
$ 
```

Problem 3)



```
asiyer@rip-riley 21:22:16 ~/53/hw4
$ make
cc -std=c99 -g -c -Wall main.c -o main.o
cc -std=c99 -g Timer.o main.o  -o prob3
asiyer@rip-riley 21:22:20 ~/53/hw4
$ ls
a.out*      core.11940  core.9227  execute*   main.c  Makefile  my_fork.c  test_input   Timer.c  Timer.o
core.11845  core.16290  core.9639  execute.c  main.o  my_fork*  prob3*     test_output  Timer.h
asiyer@rip-riley 21:22:28 ~/53/hw4
$ prob3 1 test_input test_output 4
Wallclock Time: 0.087121, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000056, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000074, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000050, User Time: 0.000000, System Time: 0.000000
asiyer@rip-riley 21:23:46 ~/53/hw4
$ prob3 2 test_input test_output 4
Wallclock Time: 0.000157, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000141, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000147, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000148, User Time: 0.000000, System Time: 0.000000
asiyer@rip-riley 21:23:53 ~/53/hw4
$ prob3 3 test_input test_output 4
Wallclock Time: 0.000029, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000021, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000020, User Time: 0.000000, System Time: 0.000000
Wallclock Time: 0.000020, User Time: 0.000000, System Time: 0.000000
asiyer@rip-riley 21:24:02 ~/53/hw4
$
```