Cassidy Brown – cmb195 OS – HW 5 – 10/19/16

## **Problem 3: Race conditions**

I implemented this program with posix threads. Each thread counted to 10^9

cassidy@nyota:~/eecs338/hw5\$ gcc -o p3 hw5\_p3.c -lpthread

cassidy@nyota:~/eecs338/hw5\$ ./p3
Parent thread count: 1000000000
Child thread count: -1000000000

Global counter: 66442797

## **Problem 4: Race conditions with fork**

Again, each process counted to 10\9

cassidy@nyota:~/eecs338/hw5\$ gcc -o p4 hw5\_p4.c -lrt

cassidy@nyota:~/eecs338/hw5\$ ./p4
Parent thread count: 1000000000
Child thread count: -1000000000

Global counter: 143979346

In both cases, the global counter never netted 0. Using fork, the error was about twice that of multithreading in this case, though that didn't really remain consistent through further testing.