**Homework 5**

8131

8176

**1.a)**

libnss is a set of open source crypto library where nss stands

for network security services.

libc is the standard C library that has the basic functions

used by C.

libdl functions are now within libc, however, libdl stays

around for backwards compatibility.

libtinfo is an offshoot of terminfo which contains functions

of the terminal.

**b)**

Apart from the virtual page numbers, they are almost

identical apart from one anon being 4K different and

therefore the total is different by 4K.

There is an anon that shares the same address, all others

are different.

**2.a)**

When switching, with threads the address space does not

need to change. Another difference is when using threads,

there are multiple stacks and do not have to be located

directly on the bottom versus processes having only one

stack.

**b)**

Using multiple threads in a program may increase the time

efficiency, both because just running at the same time

and the other reason is not having to wait for the

process to finish an action that would be blocking it.

**c)**

a. command = /usr/lib/snapd/snapd

b. pid = 919

i. Thread pid:

919

1133

1141

1144

1145

1146

1261

1266

1268

1301

1309

1310

1350

1397

1430

4400

8585

**3.a)**

The counter stops matching the intended value at 10,000.

**b)**

I think that it takes such large numbers, because initially

each thread is just about in sync, but the tiny difference

between them will start to get larger until there is a

difference.

**c)**

Increasing the number of cores would cause the problem

to occur sooner, due to using more threads so there are

more options for things to overlap.