操作系统课程设计三问题汇总

1.

```
# ls /dev/ | grep ram
myram
ram
ram0
ram1
ram2
ram3
ram4
ram5
# ./buildmyram 128 /dev/myram
/dev/myram: Device not configured
#
```

问题：修改了源码，但是没有编译内核，重启虚拟机。
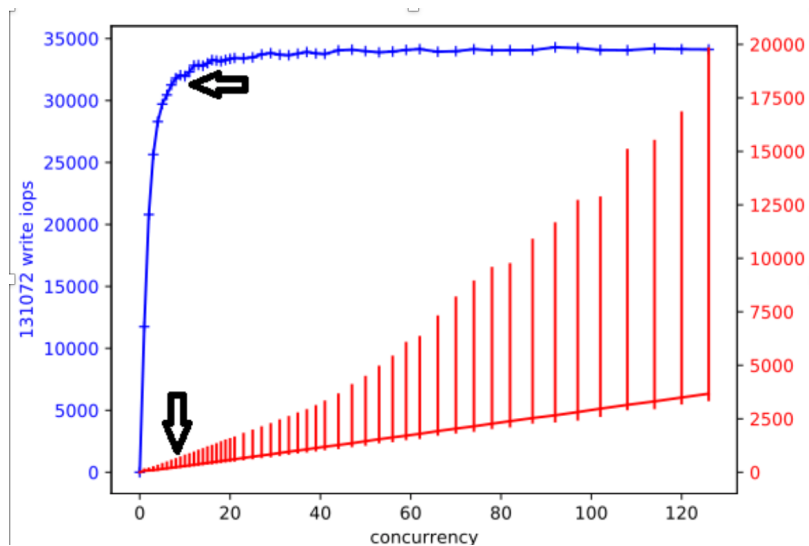解决方式：编译源码，重启选择新的 kernel。

2.

```
# buildmyram 500 /dev/myram
[1]    Segmentation fault (core dumped) buildmyram 500 /dev/myram
#
```

问题：设置 ram 盘大小出错。
解决方式：设置的大小不能超过给虚拟机分配的内存大小。关机重新分配虚拟机内存。

3.

问题：没看懂这个实验是在做什么
解决方式：蓝色代表的是吞吐，红色代表的是 I/O 时延。随着并发度的增加，吞吐是先增加，后趋于稳定(甚至恶化降低)。但是 I/O 时延会增加。

4.

```
# ./test
RAM:
Blocksize: 64 Bytes,  Writesize: 0.915527 MB, Time: 0.000000 s
Blocksize: 128 Bytes,  Writesize: 1.831055 MB, Time: 0.016000 s
Blocksize: 256 Bytes, Writesize: 3.662109 MB, Time: 0.000000 s
Blocksize: 512 Bytes, Writesize: 7.324219 MB, Time: 0.000000 s
Blocksize: 1024 Bytes, Writesize: 14.648438 MB, Time: 0.000000 s
Blocksize: 2048 Bytes, Writesize: 29.296875 MB, Time: 0.000000 s
Blocksize: 4096 Bytes, Writesize: 58.593750 MB, Time: 0.017000 s
Blocksize: 8192 Bytes, Writesize: 117.187500 MB, Time: 0.000000 s
Disk:
Blocksize: 64 Bytes, Writesize: 0.915527 MB, Time: 0.000000 s
Blocksize: 128 Bytes, Writesize: 1.831055 MB, Time: 0.000000 s
Blocksize: 256 Bytes, Writesize: 3.662109 MB, Time: 0.000000 s
Blocksize: 512 Bytes, Writesize: 7.324219 MB, Time: 0.017000 s
Blocksize: 1024 Bytes, Writesize: 14.648438 MB, Time: 0.000000 s
Blocksize: 2048 Bytes, Writesize: 29.296875 MB, Time: 0.000000 s
Blocksize: 4096 Bytes, Writesize: 58.593750 MB, Time: 0.000000 s
Blocksize: 8192 Bytes, Writesize: 117.187500 MB, Time: 0.000000 s
#
```

问题：测试出来的时延几乎为 0，在计算时存在问题。

解决方式：增加在每个进程中的读写函数执行次数，同时检查每次函数执行返回值。

5.

```
# cd /usr/src
# buildmyram 500 /dev/myram
buildmyram: not found
```

问题：没有编译该程序(不是编译源码，是编译该.c 文件)

解决方式：编译该文件

```
# ./buildmyram 500 /dev/myram
-sh: ./buildmyram: not found
```

```
# cd buildmyram
# ls
Makefile        buildmyram.c
```

问题：没有找到该可执行文件

解决方式：cd 到当时编译该.c 文件的目录中，在其中来执行该程序

6.

```
# mount /dev/myram /root/myram
mount: Can't mount /dev/myram on /root/myram: No such file or directory
```

问题：没有创建该文件目录

解决方式：创建/root/myram 文件目录