q1

a

ls -a /tmp

b

cp ~/csse2310/trunk/a4/\*.c ~/data

c

gcc -pthread /local/courses/csse2310/include -o webserver connections.c server.c /local/course/csse2310/lib csse2310a4

d

svn commit -m “Fixed bug 1234”

e

grep -n “nameserver” /etc/resolv.conf grep “nameserver” /etc/resolv.conf

f

grep -cv “tcp” /etc/services

g

grep “#define” ~/a3/hq.c >> defs

h

grep -c ‘\_’ defs > stderr grep -c “\_” defs >&2

i

grep -c “autocmd” /etc/vimrc > /tmp/vim/auto.count

j

ln ~ -s /local/courses/csse2310/bin/testa1.sh altest

ln -s /local/courses/csse2310/bin/testa1.sh ~/a1test

q2

a

double foo[5] = {0,1,3.14,2.718,1.618};

b

int\* foo(int, char\*\*);

c

char foo[9];

d

char foo; unsigned char foo;

e

float\* foo;

f

struct Job foo = malloc(sizeof(Job)); struct Job foo;

q3

SEGFAULT

675360

UNKNOWN

191

3141592

q4

a

7+4\*10 = 47

b

n = 16\*1024 / 8 = 2048 pages/entry

lv3 size = 2048 \* 16 = 32 MiB

n3 = 96 \* 2^10 / 32 = 3072 pages

(1+2+3072)\*16 = 49200 KiB

c

n3\_new = 256\*1024/32 = 8192 pages

(3075 + 1 + 4 + 8192)\*16 = 49200 + 8197\*16 = 180352

(1 + 4 + 8192) \* 16 KiB = 131 152 KiB

d

lv3 size = 2^-5 GiB

n3 \_d = 128\*2^10/ (2^-5) = 2^22 pages

2^11, 1

64GiB

e

n3\_e = 2^10 / 2^5 = 32 pages

(3075 + 34)\*16 = 49744KiB

3018\*16 = 49728KiB

Q5

a

8

b

7

c

17

d

back\*2

abdk\*2

aefghk\*2

aejk\*2

36

q6

a

|  |  |  |  |
| --- | --- | --- | --- |
|  | mask | broadcast | CIDR |
| A | 255.255.255.128 | 43.200.255.127 | 43.200.255.0/25 |
| B | 255.255.255.0 | 43.200.254.255 | 43.200.254.0/24 |
| C | 255.255.248.0 | 43.199.7.255 | 43.199.0.0/21 |
| D | 255.255.255.240 | 10.5.35.47 | 10.5.35.32/28 |

b

43.1100 1000

43.1100 0111

CIDR 43.192.0.0/12

Broadcast 43.207.255.255

Netmask 255.240.0.0

q7

a

12\*4 = 48KiB

b

n1 = 4\*1024/8 = 512 units

(512 + 512^2 + 12)\*4 = 1050672 KiB

c

(512 + 512^2 + 512^3 + 12)\*4 = 537921584 KiB

d

15\*8 = 120

e

(2148000 – 48001) / 4 + 1 = 514

q8

a

chmod g-r demo

b

chmod o+r calculate

c

2

d

0

e

bob,alice,carol

q9

a

alice,bob,dave,fred

b

alice,fred

c

bob ,dave,fred

d

alice,dave,eve,fred

q11

1, line 8

passwd can store 15 chars, may cause buffer overflow

change 20 to 15

2, line9

the last unit of fgets is ‘\0’. If strlen is used again, it will get the wrong length

delete this line

3, line 15

gets can get all data before EOF, may cause buffer overflow

use fgets

4, line 18

may cause miss reading of some contents

printf(“%s”, buff);