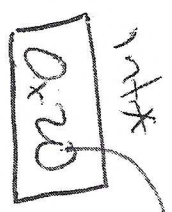
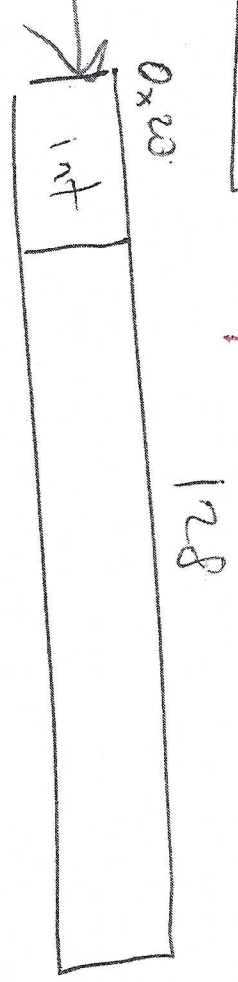
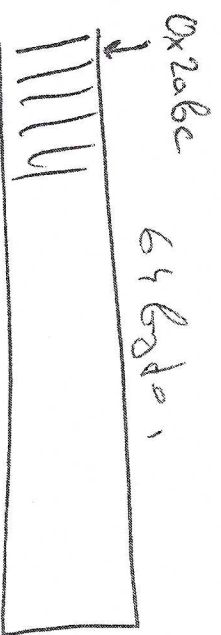
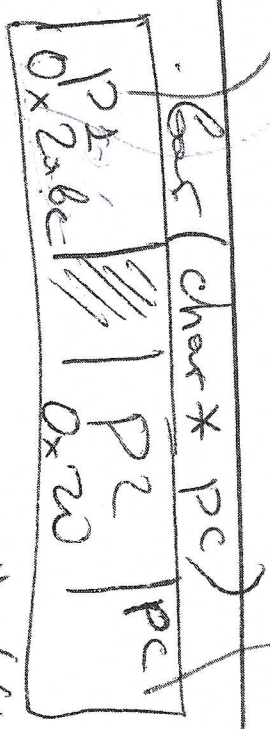
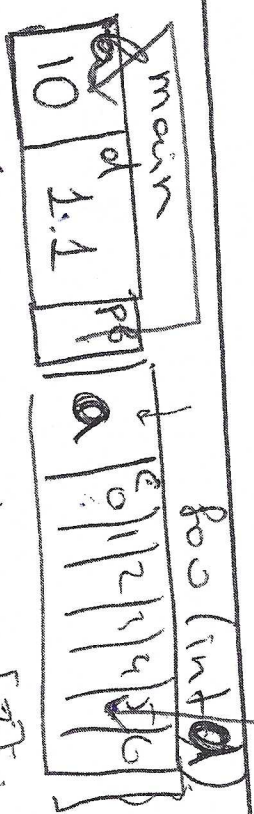


C++ heap mem (not mine)  
~~0x20bc~~  
 → (0x20)



heap  
 mine

stack  
 mine



int b = 10  
 double d = 1.1  
 foo(b)  
 int \* p1 = 88,  
 char c[7],  
 bar(8, c[5])  
 int \* p2 = malloc(64),  
 int \* p1 = malloc(128),  
 int \* p2 = malloc(sizeof(int\*))  
 \*pp = p2

~~new int\* (p2)~~  
 new int\* (p2);

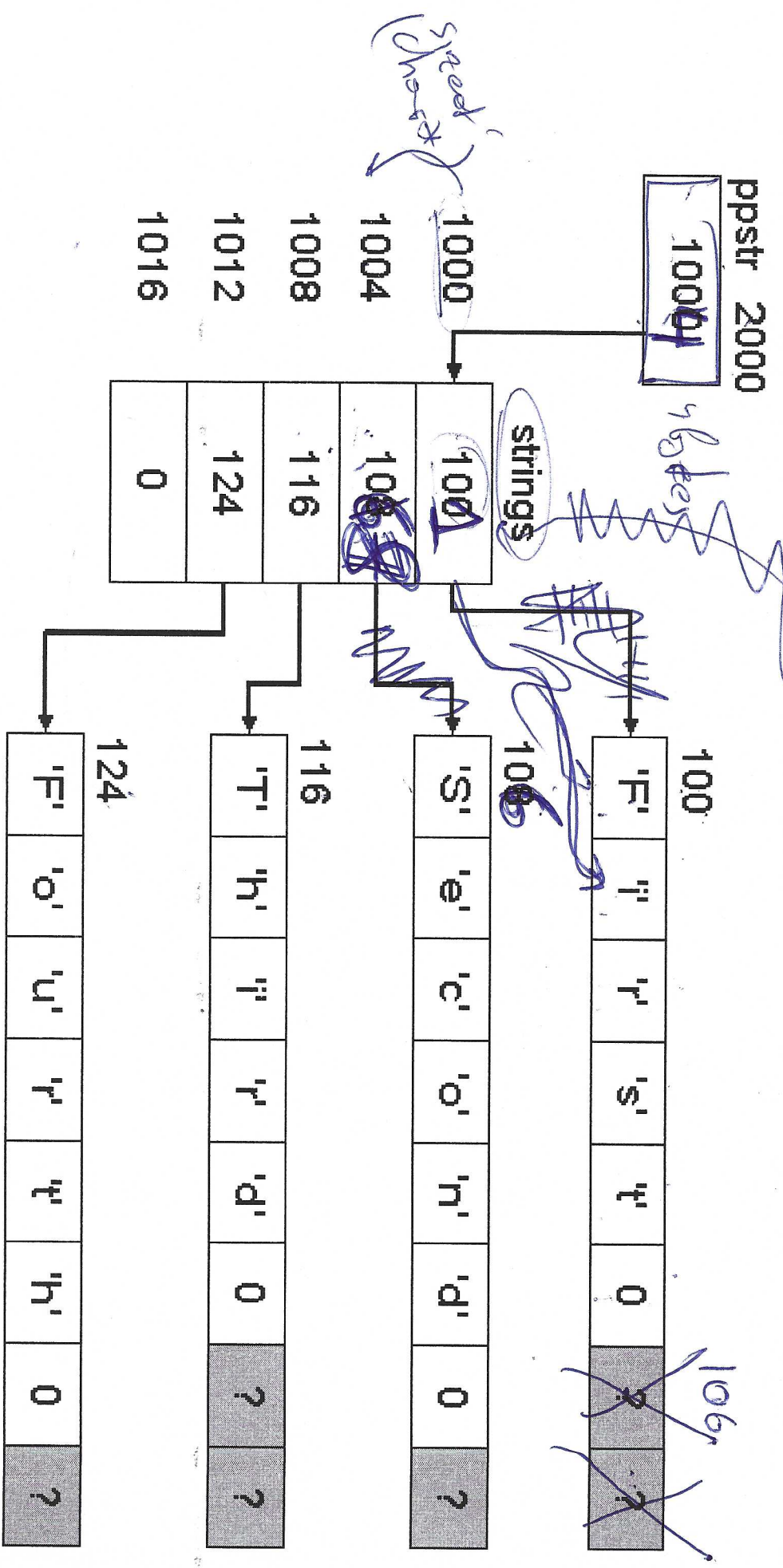
~~main~~  
 instruction

exe.

char \* strings[] = { ... }

char \*\* pstr = strings;

XX pstr as char  
XX pstr as string.



1

\* \* p p s t r ;

1000

    \* 1000

    \* 100

if ! ✓ 0

2) ++ \* p p s t r ;

1000

\* 1000

++ 100

    ++ char \*

    + char

    \* 1637e

101

~~cout <<~~

( \* ++ p p s t r ) ++ ;

++ 1000

    \* 1004

106 ++ // will become 107

106

( \* p p s t r ) ++ ;

\* 1009

107 ++

107

~~a = 10~~

~~\* ++ a ;~~

~~a ++ ;~~

a = 10

11 ← cout << ++ a ; // a = 11

a = 10

10 ← cout << a ++ ; // a = 11

Seq. point

→ become 108 after S. Point



~~##~~ \*P = a + b;

loc 2

5, put in temp.

loc 3 temp.

temp is cleaned

a + b + c + d  
5  
7  
12

Temp  
~~2~~  
~~3~~

foo; \*x foo = foo

~~\*\*\*foo()~~; (\*x & foo)();

foo; & foo

&& foo  
NO temp.

int \*p = &&foo; // illegal

0x0 is delat

\*p  
cout << \*p;

overflow

*named*  
a, mine, stack

\*P; \* needs & loc; // loc, mine st, heap.

a+b; temp  
&a; temp

→

a+b  
a++  
temp

mine

C[5]; mine  
obj.data; stack mine  
p-obj ⇒ data; mine (st & or heap).

L-location

L-val = 5  
LMS

R-read(-only).

LMS = RMS  
L-val = ⇒ R-val

<sup>2</sup>  
++  
a++  
r

++R  
NO

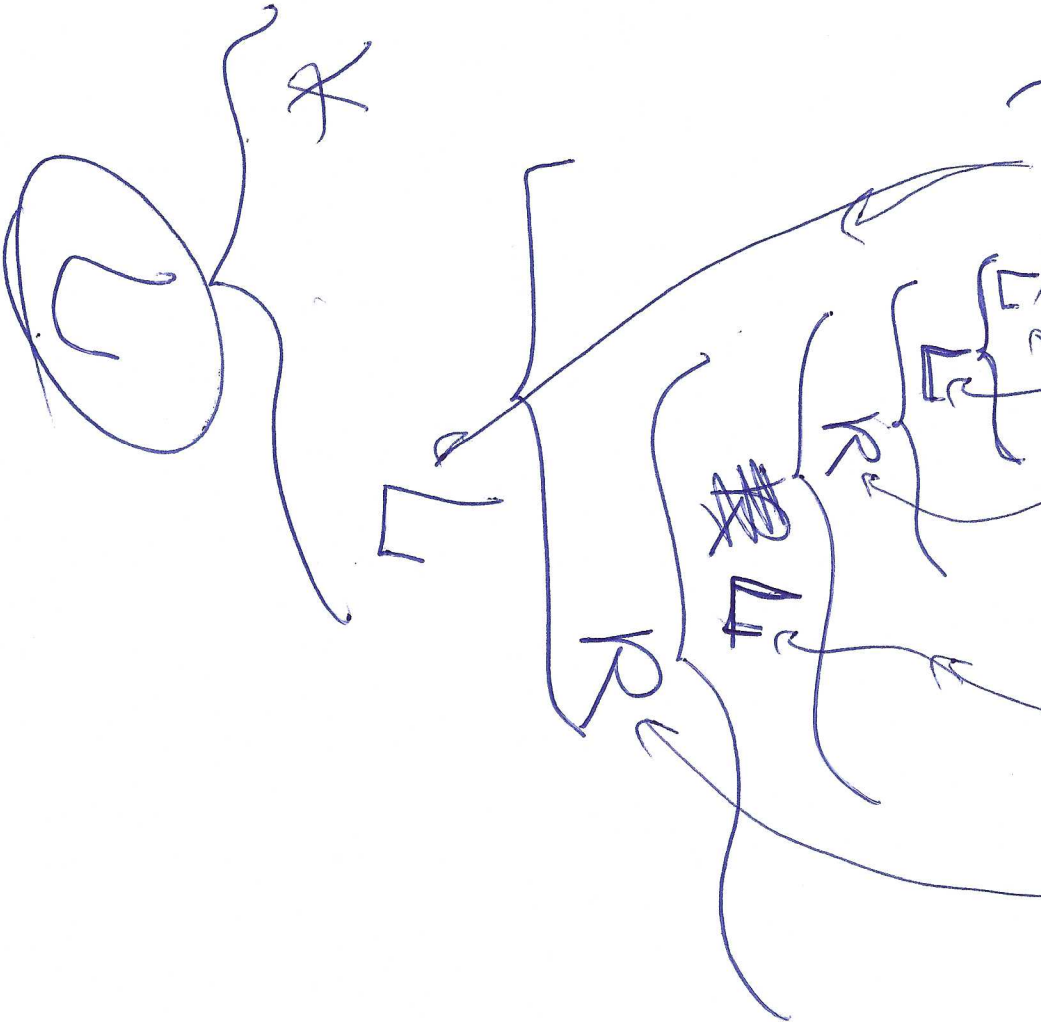
++  
++  
a  
C++  
shock  
YES

a++ ++  
r (c++)

(a++) + 2  
10  
12

14  
10  
ans

\* (\* (P[P+5] [3] ++ ) ;



$a < (b \& c) ;$

$a < 1 + b < 2 ;$

$201 + 48$

$* (a + 2)$

$R$

$(a + 2) ++$   
write  
 temp NO

$$a^2 = b^1 = c^1$$

$$a = R \checkmark$$

1

2

3

long

$$(a^1 = b^2) = c^1$$

c++

$$L = c$$

$$R = c$$

NO

$$a^1 + b^2 + c^1$$

15

$$a+++b$$

parser (greedy)

$$a+++b$$

$$a^1 + b^1$$

$$a^1 + b^1$$

$$a + (++++b)$$

$$(a < 1) + (b < 2)$$



$\frac{1}{5} +$   
 $\text{foo} (a++ \rightarrow a++ \rightarrow \text{ms} \leftarrow ?)$   
 $\leftarrow \text{illegal}$

inside foo?

seq 1      seq 2  
 10      10  
~~10~~      ~~10~~  
 10      11  
 11      10

$a[i] = i++$

seq. pos

$a++ \leftrightarrow a++$

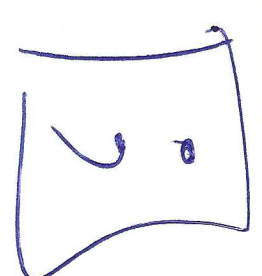
$\rightarrow \text{write}$

Seq. pos  $\rightarrow$  yes

no seq. p  $\rightarrow$  illegal

$a++? a++?$

illegal



$\rightarrow \text{seq. point}$