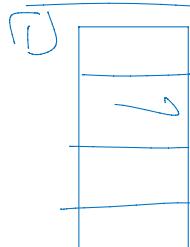
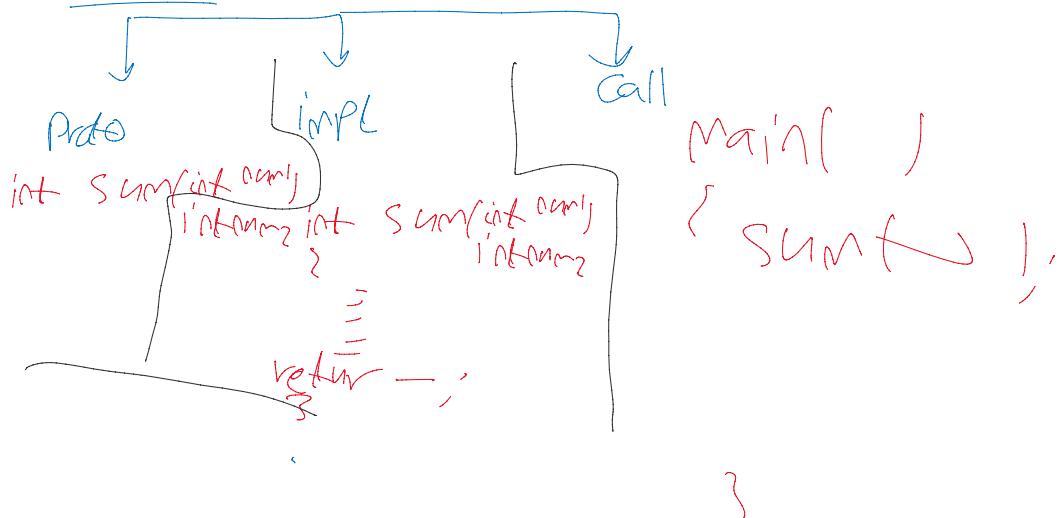


## Recap

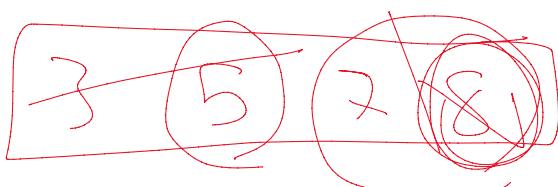
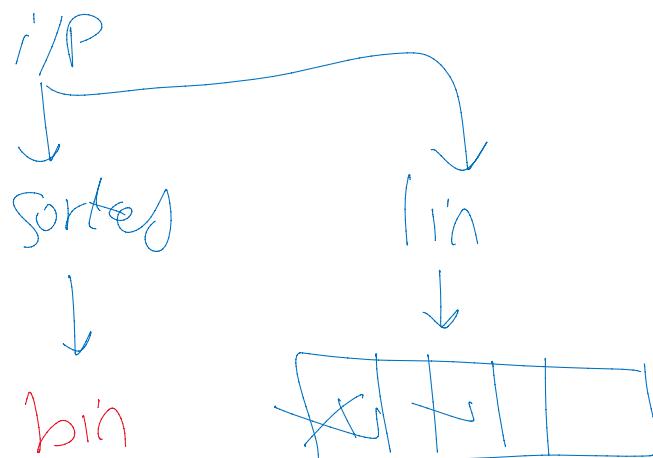


$\ast \&arr[4] = \{0\}$  }  
 $arr[0] \sim$   
1

## [2] func

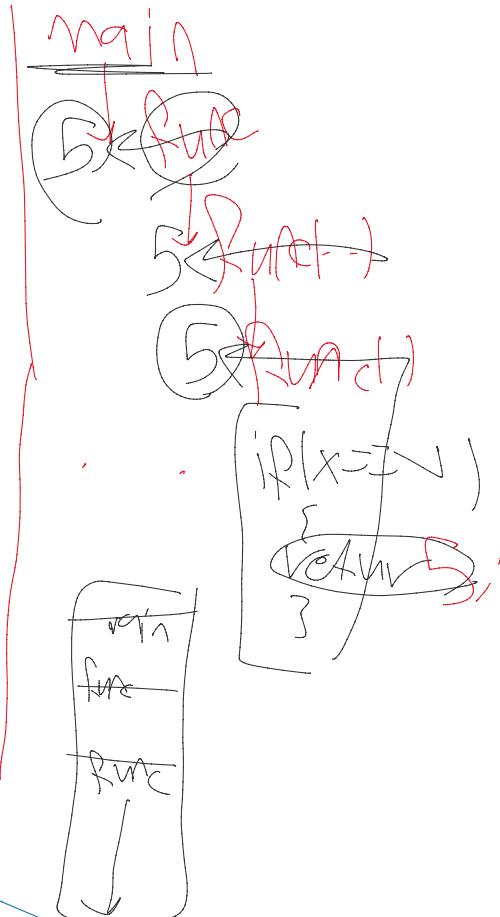


## \*search



Rec. -

```
int func(int x )  
{  
    //  
    func(x );  
    return  
}
```



\*SUM /  $\frac{5}{x}$

A child's drawing of a face with various labels. The face has a large, irregular oval shape. Inside the face, the word "SUMMER" is written in blue capital letters. Below the face, there is a blue rectangular box containing the number "5" and the word "SUMMER". To the left of the face, there is a blue asterisk (\*) and the letter "U". Above the face, there is a large oval containing the number "16" and the letter "G". To the right of the face, there is a large oval containing the number "60". Below the face, there is another oval containing the words "SUMMER" and "U SUMMER".

~~3xSum21~~

~~2 + (Shift)~~

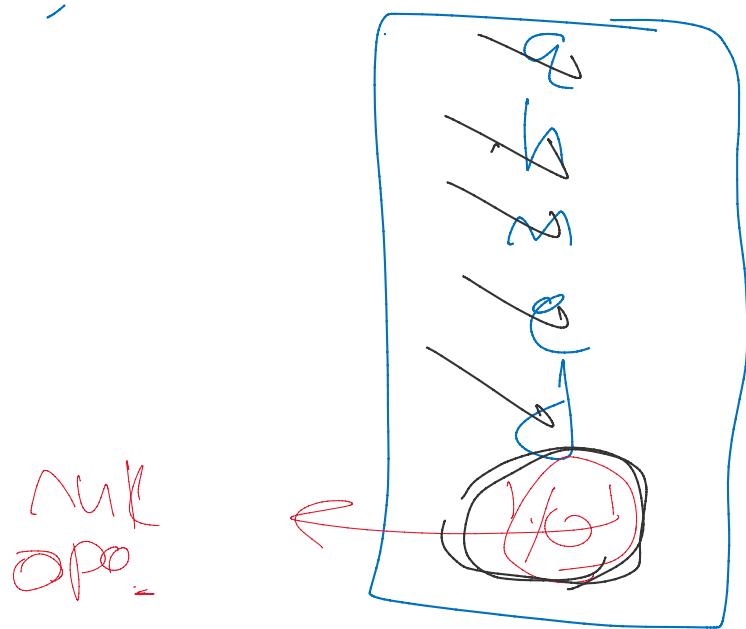
$$iR(x=0)$$

$i \leftarrow (x = 1)$

## \*String

$\text{char arr[6]} = \text{"Ahmed"};$

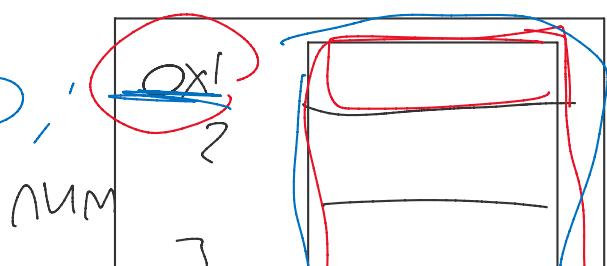
$\text{arr[2]} = ?$



## Pointers

\* int

$\text{num} = 10;$

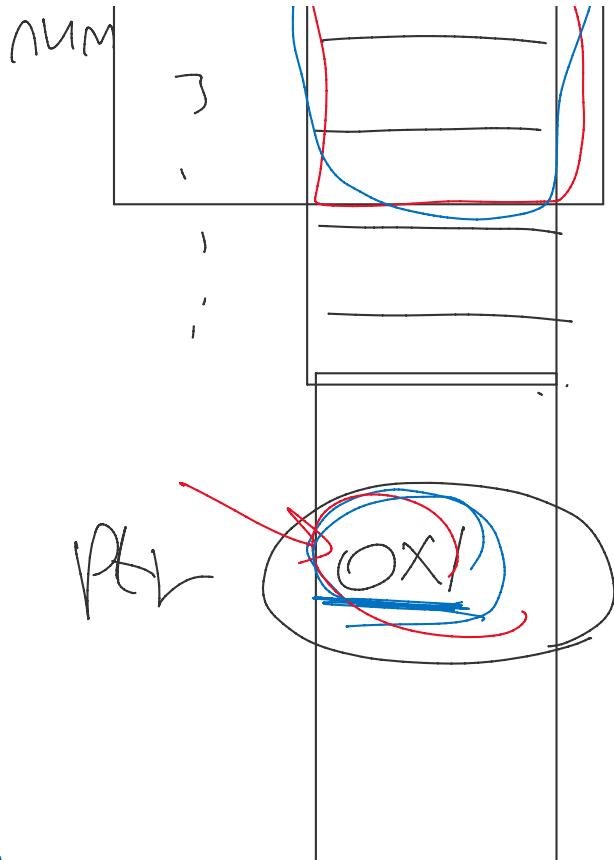


~~int~~\* Ptr = &num;

double\* - -

char\* - - -

float\* - - -

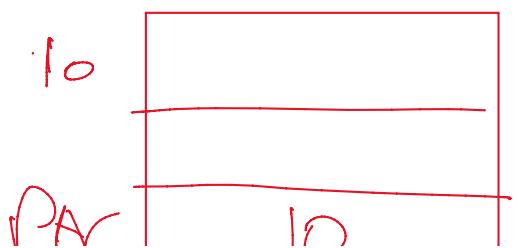


~~\*Ptr~~ = ↗ write

int x ← ~~\*Ptr~~  
// int x = num;  
~~\*ptr~~

int num;

~~int~~\* Ptr = &num; // to  
int



int

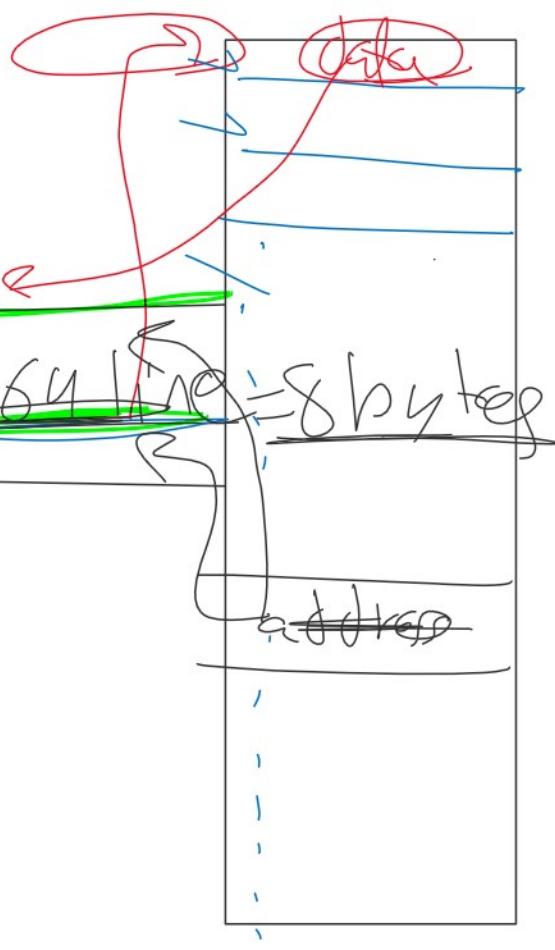
Per

10

int x = 5;

int \*ptr = address;

P

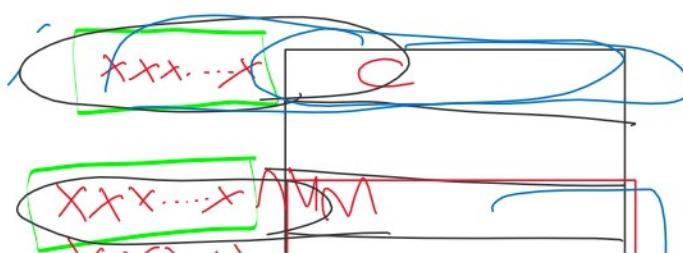


char

C

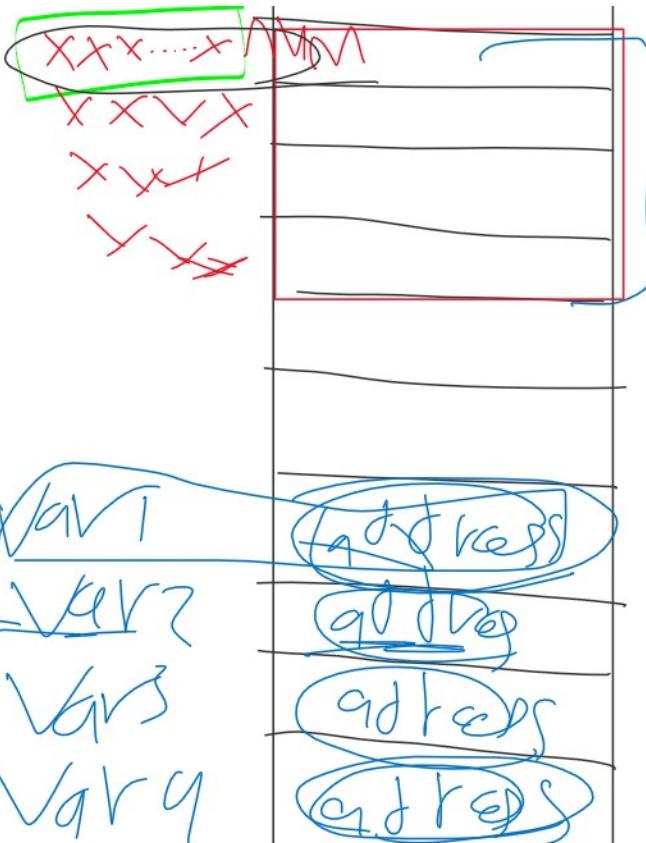
int

num



~~int~~

MM:



~~int\*~~

Var1 = address; /\*Var1

char\* Var2 = address; /\*Var2

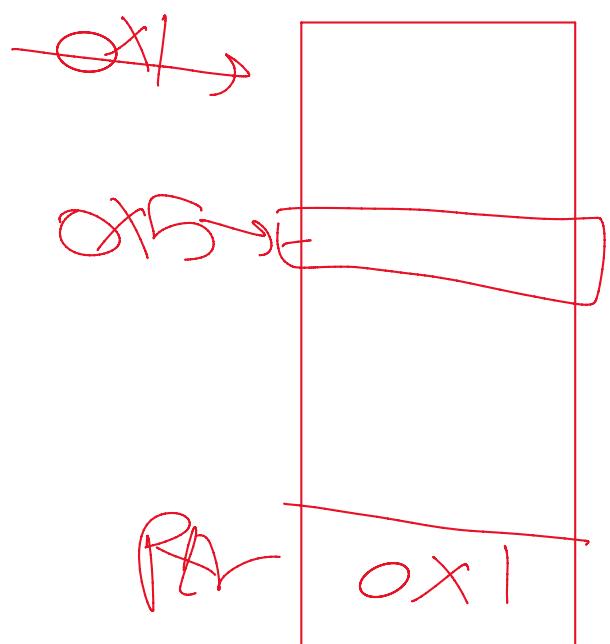
float\* Var3 = address;

double\* Var4 = address; /\*Var4

## Operations

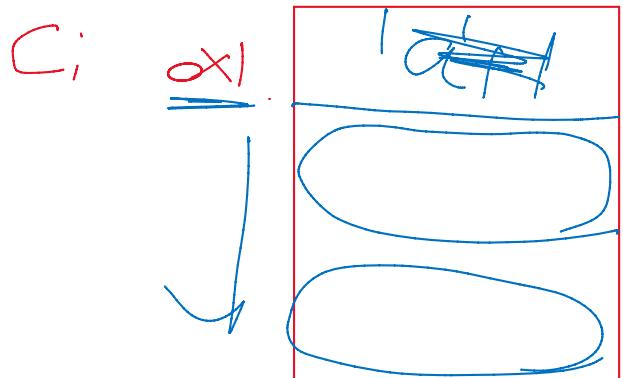
~~int\*~~ Ptr = address;

~~\* (ptr + i)~~ ;  
+ 1



char \* ptr = & c; ↗

ptr ++;



~~(ptr + 1)~~ ;

ptr  
ox2

~~(ptr~~ ;

PH1  $\rightarrow$  ;

\* (PA1) = ;

PH1-Address1;

PH2-Address2;

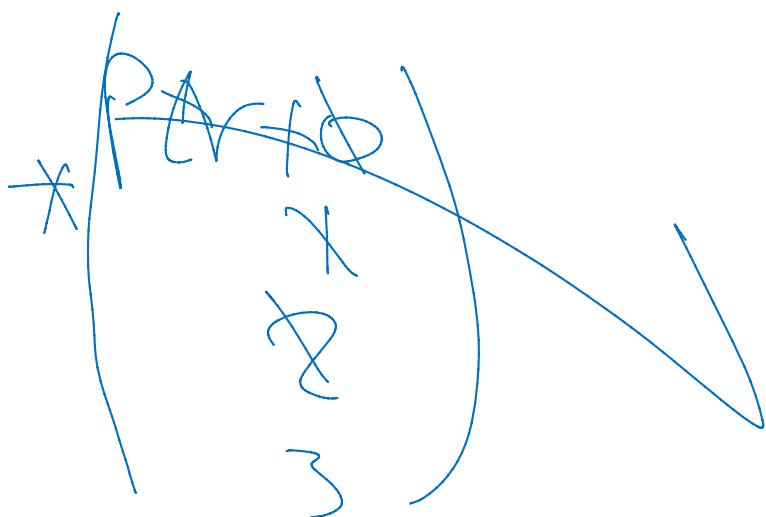
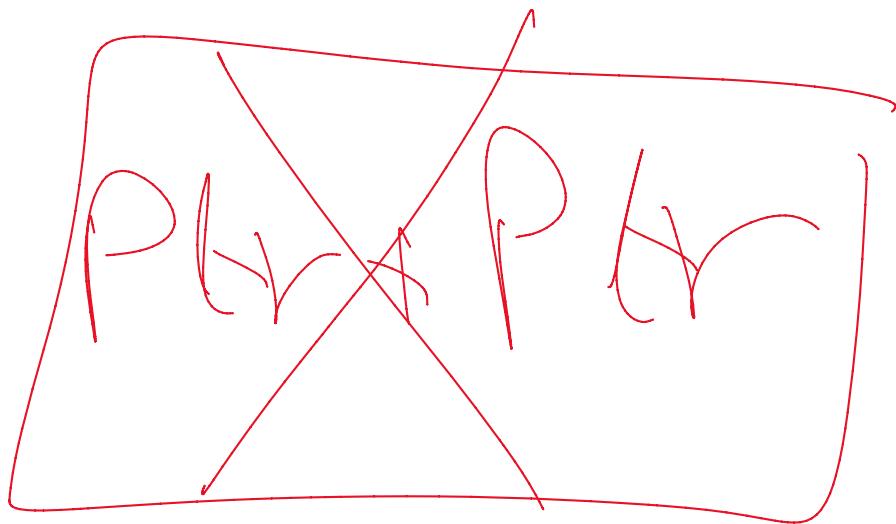
adress



address

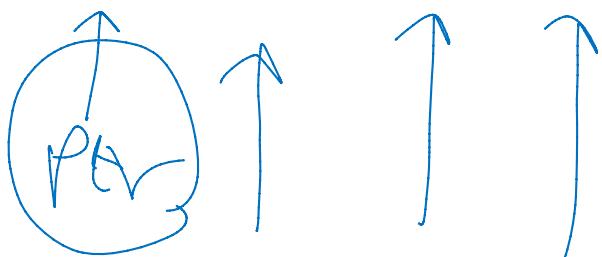
off = PA2 - PH1;

$$= 3M/5$$



Array

`int arr[3]={2, 3, 5};`



~~Print(Phr)~~

int arr[3] = { ~~0~~ ~~0~~ };

$\downarrow = \underline{\text{arr}[1]}$

~~(ptr + 1)~~

arr (address)

ptr (address)

arr[0]  
 $\Rightarrow *(\text{ptr} + 0)$   
 $\Rightarrow \boxed{\text{Phr}[0]}$