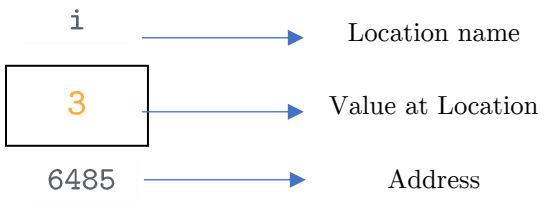
Pointers

```
int i=3;
```



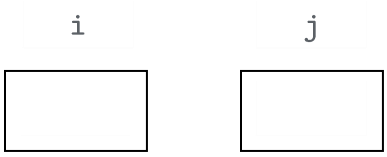
Note:In all of these problems,write variable names and their addresses in the drawn boxes.You don't have to write complete addresses.As a matter of fact just write any number for address as long as things are consistent.See the above diagram.

```
//Program1

#include <stdio.h>
int main( ) {
  int i=3;
  printf("Address of i=%u\n",&i);
  printf("Value of i=%u\n",i);
  printf("Value of &i =%d\n",*&i);
  return 0;
}
```

```c
//Program 2

#include <stdio.h>
int main( ) {
  int i=3;
  int *j;
  j=&i;
  printf("\nAddress of i=%u",&i);
  printf("\nAddress of i=%u",j);
  printf("\nAddress of j=%u",&j);
  printf("\nValue of j=%d",j);
  printf("\nvalue of i=%d",i);
  printf("\nValue of i=%d",*(&i));
  printf("\nValue of i=%d",*j);
  return 0;
}
```



```
//Program 4.

//In this program, arguments are passed to
function by sending values of arguments

//You my skip this program
```

```c
#include <stdio.h>
int main( ) {
  int a=10;
  int b=20;
  void swap_by_val(int x,int y){
    int t;
    t=x;
    x=y;
    y=t;
    printf("\nx=%d",x);
    printf("\ny=%d",y);
  }
  swap_by_val(a,b);
  printf("\na=%d",a);
  printf("\nb=%d",b);
  return 0;
}
```

```
//Program 5.

//In this program, arguments are passed to
function by sending addresses of arguments
```

```c
#include <stdio.h>
int main( ) {
  int a=10;
  int b=20;
  void swap_by_address(int *x,int *y){
    int t;
    t=*x;
    *x=*y;
    *y=t;
  }
  swap_by_address(&a,&b);
  printf("\na=%d",a);
  printf("\nb=%d",b);
  return 0;
}
```

```c
//Program 6

#include <stdio.h>
void areaperi(int r,float *a,float *p){
  *a=3.14*r*r;
  *p=2*3.14*r;
}

int main( ) {
  int radius;
  float area,perimeter;
  radius=5;
  areaperi(radius,&area,&perimeter);
  printf("Area=%f",area);
  printf("\nPerimeter=%f",perimeter);
  return 0;
}
```

i

i

3

6485

i

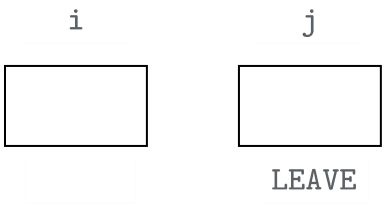
3

6485

i

3

6485


i
j
LEAVE