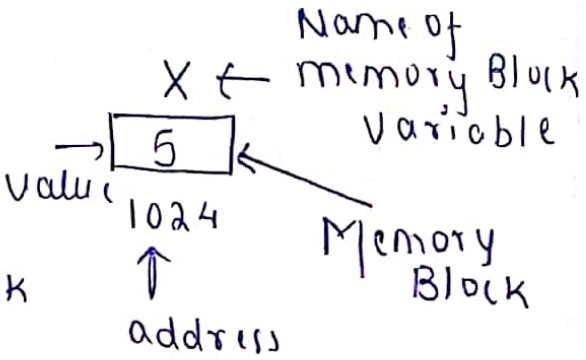
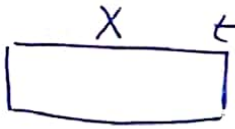
Pointers in C

Basics of pointer :-

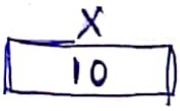
```
int x = 10;
```



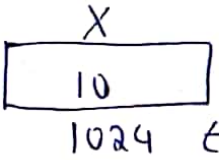
① ← Memory Block

② 

← Name of Memory Block

③ 

← Value in memory Block

④ 

← address of memory Block.
(location)

To print address of x :-

```
main()
{int x = 10;
Printf("%d", x);
Printf("%d", &x);
}
```

O/P

```
10.
1024
```

address operator.

① & is known as address of operator.
② It is an unary operator.
3) It is also known as referencing operator.

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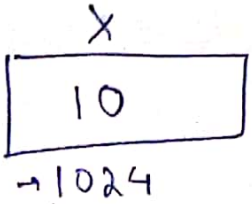
Indirection Operator :-

(*) is Indirection operator
↳ also known as dereferencing operator.

↓ Value at



Example :-

```
main()
{
  int x=10;
  printf("%d", x); -(1)
  printf("%d", &x); -(2)
  printf("%d\n", *&x); -(3)
}
```

```
10
1024
10
```

Note :-

```
int x=10;
&x = 20;
```

→ error

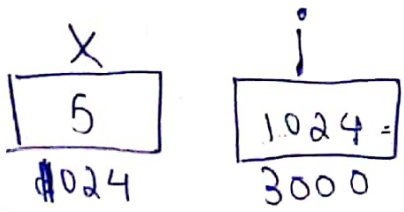
↓ constant

we can not store anything in address of x.

→ (2)

```
int x=5;
j=&x;
```

↳ correct.




```
int *j;
```

we can store address in other variable. we need to declare it.

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Pointer :-

↳ pointer is a variable that contains address of another variable.

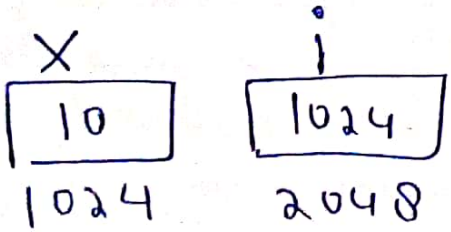
→ pointer always consumes 2 bytes in memory.

Question:

```
main()
{ int x=5, *j;
  j=&x;
  printf("%d %u\n", x, j);
  printf("%d %u", *j, &x);
  printf("%u", *&j);
}
```

%u → unsigned integer
→ 0 to 65535

-(1)
-(2)
-(3)



o/p.

5	1024
10	1024
1024	

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