

# Parameter Passing Methods

## Pass by value / call by value.

```
void swap(int a, int b) {
```

```
    int temp;
```

```
    temp = a;
```

```
    a = b;
```

```
    b = temp;
```

```
}
```

```
int main() {
```

```
    int a, b;
```

```
    a = 10;
```

```
    b = 20;
```

```
    swap(a, b);
```

```
    printf("%d %d", a, b);
```

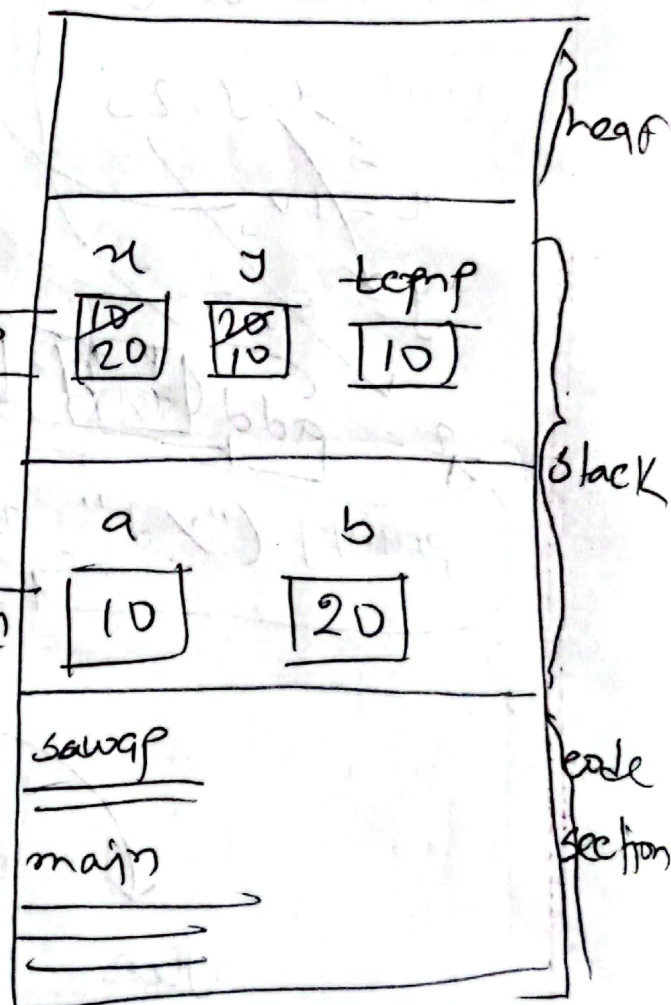
```
    ↓ ↓
    10 20
```

not swapped.

When to use ;

1. when don't have to modify actual parameters

2. when function is returning some results.



## Call by Address :

The addresses of actual parameters are passed to formal parameters and formal parameters must be pointers.

```
void swap (int *a, int *b) {
```

```
    int temp;
```

```
    temp = *a;
```

```
    *a = *b;
```

```
    *b = temp;
```

```
}
```

```
int main() {
```

```
    int a, b;
```

```
    a = 10;
```

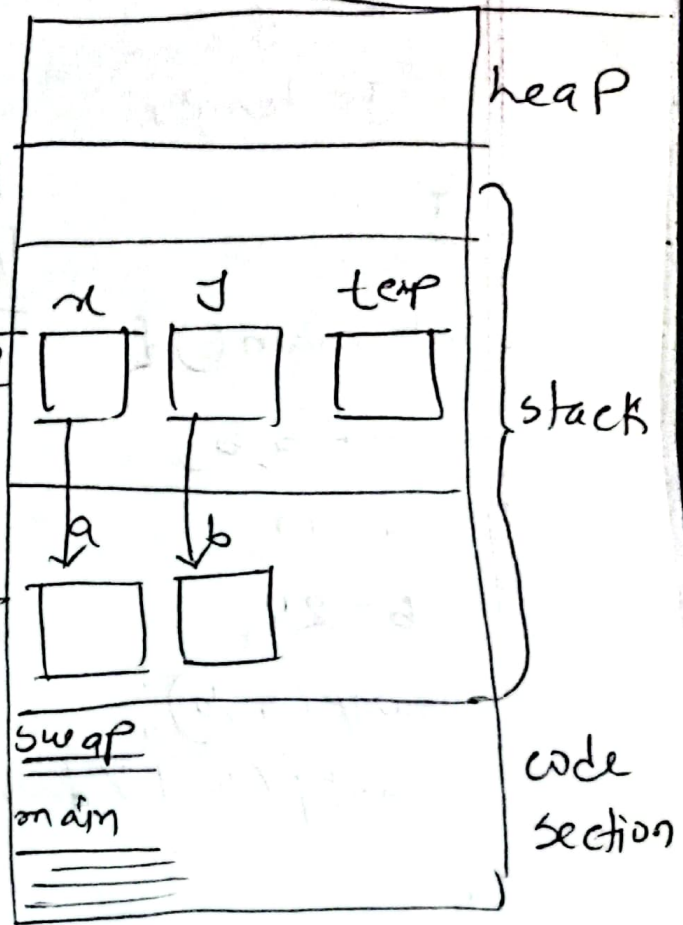
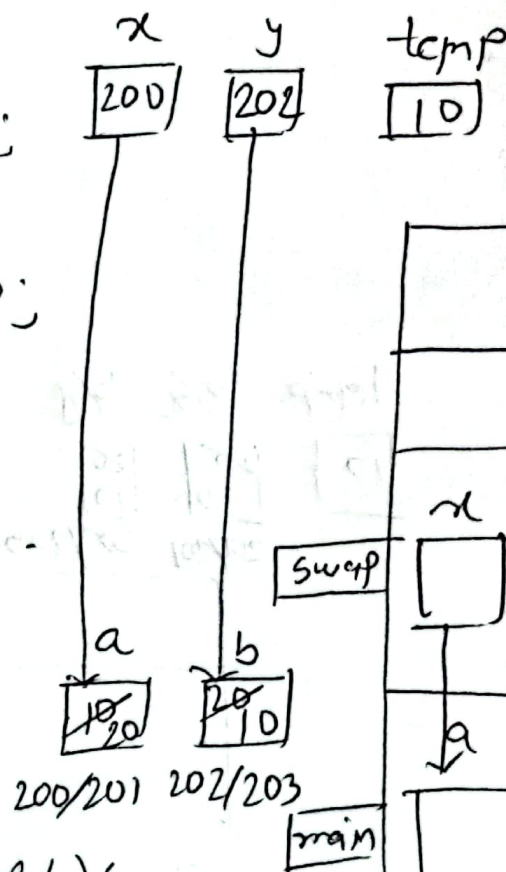
```
    b = 20;
```

```
    swap (&a, &b);
```

```
    printf ("x.d x.d", a, b);
```

```
}
```

It is suitable for modifying actual parameters





call by Reference is (c++ Only);

References.  
↑                      ↑  
void swap(int &a, int &b) {

int temp;

temp = x;

x = y;

y = temp;

}

int main() {

int a, b;

a = 10;

b = 20;

swap(a, b);

printf("%d %d", a, b);

}

temp    a/x    b/y  

10

~~10~~  
20

~~20~~  
10

  
200/201    202/203

