

Increment vs Decrement

Increment operator(++):-Increment operator is used to increase the value of a operator by one.

Decrement operator(--):-Decrement operator is used to decrease the value of a operator by one.

Each of these are categorized into two types:-

Increment:-

- pre-Increment
- post-Increment

Decrement:-

- pre-Decrement
- post-Decrement

Pre:- First Increment (or) Decrement the value of a variable and assign to the same (or) another variable.

`++a (or) --a ;`

Post:-First assign the value to same or another variable the Increment (or) Decrement the value of a variable

`a++ (or) a-- ;`

```
// C Program to implement Increment and decrement operators
#include <stdio.h>
int main()
{
    int a=5,b=6;
    a=a++;
    printf("%d\t",a); //post increment
    printf("%d\t",++b); //pre increment
    printf("%d\t",--b); // pre decrement
    printf("%d\t",a--); // post decrement
```

```
return 0;  
}
```

Output:-

5 7 6 5

l-value (left value):-

- Simply mean an object that has an identifiable location in the memory(i.e having an address).
- In any assignment statement "***l-value***" must have the capability to hold the data.
- ***l-value*** must be a variable because they have the capability to store the data.

r-value (right value):-

- Simply mean an object that has no identifiable location in the memory
- Anything which is capable of returning a constant expression (or) a value.
- Expressions like (a+b) will return some constant value.

Ex:-

```
(a+b)++  
(a+b)=(a+b)+1
```

These produce errors.