COPERATORS





TYPES



- Arithmetic operator
- Relational operator
- Shift operator
- logical Operator
- Bitwise operator
- Assignment operator (+=,-=,*=,/=,%=)
- Conditional operator (?:)
- Misc operator (sizeof())



$$(\&\&,||,!)$$

$$(\&,|,^{\wedge})$$



ARITHMETIC OPERATOR

```
#include<stdio.h>
#include<conio.h>
void main() {
int a,b,c;
clrscr();
scanf("%d",&a);
scanf("%d",&b);
c=a+b; // -, *, /, %
printf("%d",c);
getch();
```

RELATIONAL OPERATOR

```
#include<stdio.h>
#include<conio.h>
void main()
int a,b,c;
clrscr();
scanf("%d",&a);
scanf("%d",&b);
c=a>b; // < , >=, <=, ==, !=
printf("%d",c);
getch();
```

LOGICAL OPERATOR

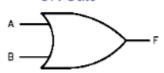


AND Gate



	INPUT		OUTPUT
	Α	В	F
	0	0	0
	0	1	0
١	1	0	0
	1	1	1

OR Gate



	INPUT		OUTPUT
	Α	В	F
	0	0	0
	0	1	1
	1	0	1
ı	1	1	1

TRUTH TABLE

INPUT	OUTPUT
×	z
0	1
1	0

Example



```
void main()
int a=1,b=2,c;
clrscr();
c=a&&b; // ||(OR), ! (NOT)
printf("%d",c);
getch();
```

Bitwise Operator



```
void main()
int a,b,c;
clrscr();
scanf("%d%d",&a,&b);
c=a&b; //&,|,^
printf("%d",c);
getch();
WORKING:
a=6 110 (AND)
b=6 110
  Ans 1 1 0 = 6
a=8 1000 (OR)
b=10 1010
  Ans 1010 = A
```

Shift Operator



```
void main()
int a,b,n=2;
clrscr();
scanf("%d",&a);
b=n|1<<a;
printf("%d",b);
getch();
Working:
1<<2 -> 100
1<<4 -> 10000
```

Unary Operators



```
++ Increment
```

-- Decrement

a-- =5

--a = 4

```
a++ =post increment
++a =pre increment
a-- =post decrement
--a =pre decrement
a=5;
a++ =5
++a =6
```

Unary Operators Example



```
void main()
int a=-5;
clrscr();
printf("%d %d %d %d",++a,a++,--a,a--);
getch();
```

Assignment Operator



```
a+=b -> a=a+b
a-=b -> a=a-b
b*=a -> b=b*a
b/=a -> b=b/a
c%=a -> c=c%a
Example:
void main()
int a=1,b=2;
clrscr();
a+=b;
printf("%d",a);
getch();
```

Conditional Operator



Syntax:

(condition)? True:flase;

Example:

a>b?printf("Greater=%d",a):printf("Greater=%d",b);

Misc Operator



```
Syntax: sizeof(variable);
```

```
void main()
{
int a;
clrscr();
printf("%d",sizeof(a));
getch();
}
```

Queries?





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