Operators:

1. Arithmatic opertator:

**public** **static** **void** main(String[] args) {

**int** i = 10;

**int** j = 20;

// addition '+'

**int** k = i+j +40 ;

System.***out***.println(k);

// substraction '-'

**int** h= i-j ;

System.***out***.println(h);

// multiplication '\*'

**int** l = i\*j;

System.***out***.println(l);

// division '/'

**double** m = i/j;

System.***out***.println(m);

**double** d = 10;

**double** e = 20;

**double** f = d/e;

System.***out***.println(f);//0

// modulus operator '%'

**int** o = 10;

**int** p = 3;

**int** s = o%p;

System.***out***.println(s);

}

}

Output:

70

-10

200

0.0

0.5

1

Chain rule applicable to all the data types:

**public** **static** **void** main(String[] args) {

**byte** b = 10;

**byte** c = 20;

// byte d = b+c;

// byte ---> short ---> int ---> long---> float ---> double

// char

// byte + byte = int

// int + byte = int

// int + long = long

// int + float = float

// float + double = double

}

Conditional operators:

1. greater than operator ‘ > ‘

// greater than operator'>'

**int** i = 100;

**int** j = 20;

**boolean** r = i>j;

System.***out***.println(r);

**if**(i>j)

{

System.***out***.println("if is executing ");

}

**else**

{

System.***out***.println("else is executing");

}

2. greater than or equal to

// greater than or equal to '>='

**boolean** s = i>=j;

System.***out***.println(s);

3. less than ‘<’

// less than '<'

**boolean** t = i<j;

System.***out***.println(t);//false

4. Less than or equal to ‘<=’

// less than or equal to '<='

**boolean** v = i<=100;

System.***out***.println(v);// true

5. Equal to operator ‘==’

// equal to operator '=='

**boolean** w = i==j;

System.***out***.println(w);// false

**if**(i==j)

{

System.***out***.println("if is executing ");

}

**else**

{

System.***out***.println("else is executing");

}

‘==’ Vs ‘=’:

== is used to compare the two values where as ‘=’ is used to assign the value inside a variable.

}

Logical operator:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| AND |  |  |  | NOT |  |
| X | Y | Z |  | X | Y |
| FALSE | FALSE | FALSE |  | TRUE | FALSE |
| FALSE | TRUE | FALSE |  | FALSE | TRUE |
| TRUE | FALSE | FALSE |  |  |  |
| TRUE | TRUE | TRUE |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| OR |  |  |  |  |  |
| X | Y | Z |  |  |  |
| FALSE | FALSE | FALSE |  |  |  |
| FALSE | TRUE | TRUE |  |  |  |
| TRUE | FALSE | TRUE |  |  |  |
| TRUE | TRUE | TRUE |  |  |  |

// logical AND operator:

**int** i = 50;

**int** j = 20;

**boolean** k = (i>20) && (j<50);

System.***out***.println(k);// true

**boolean** l = (i==20) && (j<50);

System.***out***.println(l);// false

// Logical OR operator:

**boolean** m = (i>20) || (j<50);

System.***out***.println(m);// true

**boolean** n = (i==20) || (j<50);

System.***out***.println(n);// true

// NOT operator

**boolean** o = i != 20;

System.***out***.println(o);

**boolean** p = !(i>50);

System.***out***.println(p); // true

}