

## Relational Operators

Relational operators are used for comparing values.

Relational operators are binary operators, which required 2 operands.

The expression which is created using relational operator is called Boolean expression.

This expression always returns Boolean value True or False

Operators	Description
>	Greater than
<	Less than
>=	Greater than or equal
<=	Less than or equal
!=	Not Equal
==	Equal

These operators are used to for comparing numbers or sequences (string, list,tuple,..)

## Conditional Operator

This operator is used for evaluating operands based on condition or boolean expression. Conditional operator is ternary operator it required 3 operands

Conditional operator is used to evaluate simple conditional expressions but not complex

### Syntax:

opr1 if opr2 else opr3

opr1 is evaluated if opr2 is True

opr3 is evaluated if opr2 is False

### Example:

```
>>> print("Hello") if True else print("Bye")
```

```
Hello
```

```
>>> print("Hello") if False else print("Bye")
```

```
Bye
```

```
>>> print("Hello") if 10>5 else print("Bye")
```

```
Hello
```

```
>>> print("Hello") if 10<5 else print("Bye")
```

```
Bye
```

**Example:**

#write a program to input name,age and find elg to vote

```
name=input("Enter name")
age=int(input("Enter age"))
print(name,"is elg to vote") if age>=18 else print(name,"is not elg to vote")
```

**Output:**

===== RESTART: F:/python6pmaug/test23.py =====

Enter namenares

Enter age50

naresh is elg to vote

===== RESTART: F:/python6pmaug/test23.py =====

Enter namesuresh

Enter age15

suresh is not elg to vote

**Example:**

# write a program to find input number is even or odd

```
num=int(input("enter any number"))
print(num,"is even") if num%2==0 else print(num,"is odd")
```

**Output:**

enter any number6

6 is even

===== RESTART: F:/python6pmaug/test24.py =====

enter any number7

7 is odd

**Example:**

# write a program to find last digit of number is

# multiples of 2

```
num=int(input("enter any number"))
d=num%10
print(d,"is multiples of 2") if d%2==0 else print(d,"is not multiples of 2")
```

**Output:**

enter any number126  
6 is multiples of 2

===== RESTART: F:/python6pmaug/test25.py =====  
enter any number127  
7 is not multiples of 2

<https://www.codechef.com/submit/CREDSCORE>

```
score=int(input())  
print("YES") if score>=750 else print("NO")
```

<https://www.hackerrank.com/challenges/python-arithmetic-operators/problem?isFullScreen=true>

```
if __name__ == '__main__':  
    a = int(input())  
    b = int(input())  
    print(a+b)  
    print(a-b)  
    print(a*b)
```

<https://www.hackerrank.com/challenges/python-division/problem?isFullScreen=true>

```
if __name__ == '__main__':  
    a = int(input())  
    b = int(input())  
    print(a//b)  
    print(a/b)
```

**nested conditional operators**

using more than one conditional operator is called nested conditional operators. It is used for checking multiple conditions.

Syntax:

opr1 if opr2 else opr3 if opr4 else opr5 if opr6 else opr7

**Example:**

# write a program to find input number is +ve,-ve or zero

```
num=int(input("enter any number"))  
print("+ve") if num>0 else print("-ve") if num<0 else print("zero")
```

**Output:**

```
===== RESTART: F:/python6pmaug/test26.py =====  
enter any number5  
+ve
```

```
===== RESTART: F:/python6pmaug/test26.py =====  
enter any number-8  
-ve
```

```
===== RESTART: F:/python6pmaug/test26.py =====  
enter any number0  
zero
```