



# Vidya Bhawan Balika Vidyapith

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## Chapter:- 4. PROGRAMMING AND BASICS .

**CLASS- IX<sup>TH</sup>**

**SUB TEACHER :- VIKASH KR. RAJAK**

**SUBJECT:- IT**

**DATE :- 28/05/2020**

 **Topic :- Types of Expression, Computer Language.**

### ● **ARITHMETICAL EXPRESSIONS:-**

In an arithmetic expression the following operators are used in conjunction with the operands. Symbol Meaning

#### Arithmetic Operators

| Operator | Meaning        | Example                  |
|----------|----------------|--------------------------|
| +        | Addition       | $4 + 7 \rightarrow 11$   |
| -        | Subtraction    | $12 - 5 \rightarrow 7$   |
| *        | Multiplication | $6 * 6 \rightarrow 36$   |
| /        | Division       | $30 / 5 \rightarrow 6$   |
| %        | Modulus        | $10 \% 4 \rightarrow 2$  |
| //       | Quotient       | $18 // 5 \rightarrow 3$  |
| **       | Exponent       | $3 ** 5 \rightarrow 243$ |

### ● **RELATIONAL EXPRESSION:-**

Relational expression is composed of operands linked by the relational operators. Relational operators used in the relational expression are given Symbol Meaning.

#### Relational Operators

| Operators | Meaning                  | Example  |
|-----------|--------------------------|----------|
| <         | Less than                | $5 < 2$  |
| >         | Greater than             | $5 > 2$  |
| <=        | Less than or equal to    | $5 <= 2$ |
| >=        | Greater than or equal to | $5 >= 2$ |
| ==        | Equal to                 | $5 == 2$ |
| !=        | Not equal to             | $5 != 2$ |

- **LOGICAL EXPRESSIONS:-**

When a selection is based upon one or more condition being true. It is possible to combine the condition together using logical operators and the resulting condition would either be true or false the most commonly used logical operators are AND, OR and NOT.

| Logical Operators |             |                                         |
|-------------------|-------------|-----------------------------------------|
| Operator          | Description | Example                                 |
| &&                | AND         | x=6<br>y=3<br>x<10 && y>1 Return True   |
|                   | OR          | x=6<br>y=3<br>x==5    y==5 Return False |
| !                 | NOT         | x=6<br>y=3<br>!(x==y) Return True       |

➤ **COMPUTER LANGUAGE:-**

Language is a system for representation and communication of information or data. Like human beings, a language or signal is required to communicate between two persons. Similarly, we cannot obtain any result by computer without language. Computer does not understand directly what we are communicating with computer as English or Arabic; it understands only machine language (binary codes 0-1).

✍ **Home Work (Based on study material of 27-05-20 )**

**Answer the following questions:-**

1. What is Bits & Bytes?
2. What is Computer Word?
3. What is Library Function?
4. What is Expression?
5. Write the types of Expression?