1. What are the various types of operators in dart? Explain with Examples.

**Answer:**

The various types of operators in dart are:

* Arithmetic Operators
* Equality and Relational Operators
* Assignment Operators
* Logical Operators

**Arithmetic Operators (explanation):**

Consider the following expression – "2 + 3". In this expression, 2 and 3 are **operands** and the symbol "+" (plus) is the **operator**.

**Example:**

The following table shows the arithmetic operators supported by Dart.

|  |  |
| --- | --- |
| **S.NO** | **Operators & Meaning** |
| **1** | +Add |
| **2** | −Subtract |
| **3** | \*Multiply |
| **4** | /Divide |
| **5** | ~/Divide, returning an integer result |
| **6** | %Get the remainder of an integer division (modulo) |
| **7** | ++Increment |
| **8** | --Decrement |

**Equality and Relational Operators (explanation):**

Relational Operators tests or defines the kind of relationship between two entities. Relational operators return a Boolean value i.e. true/ false.

**Example:**

Assume the value of A is 10 and B is 20

|  |  |  |
| --- | --- | --- |
| **Operator** | **Description** | **Example** |
| **>** | Greater than | (A > B) is False |
| **<** | Lesser than | (A < B) is True |
| **>=** | Greater than or equal to | (A >= B) is False |
| **<=** | Lesser than or equal to | (A <= B) is True |
| **==** | Equality | (A==B) is False |
| **!=** | Not equal | (A!=B) is True |

**Assignment Operators (explanation and example):**

|  |  |
| --- | --- |
| **Sr.No** | **Operator & Description** |
| 1 | **=(Simple Assignment )**  Assigns values from the right side operand to the left side operand  **Ex**:C = A + B will assign the value of A + B into C |
| 2 | **??=**  Assign the value only if the variable is null |
| 3 | **+=(Add and Assignment)**  It adds the right operand to the left operand and assigns the result to the left operand.  **Ex**: C += A is equivalent to C = C + A |
| 4 | **─=(Subtract and Assignment)**  It subtracts the right operand from the left operand and assigns the result to the left operand.  **Ex**: C -= A is equivalent to C = C – A |
| 5 | **\*=(Multiply and Assignment)**  It multiplies the right operand with the left operand and assigns the result to the left operand.  **Ex**: C \*= A is equivalent to C = C \* A |
| 6 | **/=(Divide and Assignment)**  It divides the left operand with the right operand and assigns the result to the left operand. |

**Logical Operators (explanation):**

Logical operators are used to combine two or more conditions. Logical operators return a Boolean value.

**Example:**

 Assume the value of variable A is 10 and B is 20.

|  |  |  |
| --- | --- | --- |
| **Operator** | **Description** | **Example** |
| && | **And** − The operator returns true only if all the expressions specified return true | (A > 10 && B > 10) is False. |
| || | **OR** − The operator returns true if at least one of the expressions specified return true | (A > 10 || B > 10) is True. |
| ! | **NOT** − The operator returns the inverse of the expression’s result. For E.g.: !(7>5) returns false | !(A > 10) is True. |