**OPERATORS**

**Identity Operators**

Identity operators are used to compare the object, not if the are equal, but if they are actually the same object, with the same memory location.

|  |  |  |
| --- | --- | --- |
| **Operator** | **Description** | **Example** |
| Is | Return true if both variables are same object | X is Y |
| Is not | Return true if both variables are not same object | X is not Y |

**Membership Operators**

Membership operator are used to test if a sequence is presented in an object.

|  |  |  |
| --- | --- | --- |
| **Operator** | **Description** | **Example** |
| In | Return true if a sequence with the specified value is present in the object | X in Y |
| Not in | Return true If a sequence with the specified value is not present in the object. | X not in Y |

**Bitwise Operators**

Bitwise operators are used to compare (binary) numbers.

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| --- | --- | --- |
| **Operator** | **Name** | **Description** |
| & | AND | Sets each bit to 1 if both bits are 1 |
| | | OR | Sets each bit to 1 if one of two bits is 1 |
| ^ | XOR | Sets each bit to 1 if only one of two bits is 1 |
| ~ | NOT | Inverts all the bit |
| << | Zero fill left sift | Shift left by pushing zeroes in from the right and let the leftmost bits fall off |
| >> | Signed right sift | Sift right by pushing copies of the leftmost bit in from the left, and let the rightmost bits fall off |