1. Basic Arithmetic Operators

|  |  |  |
| --- | --- | --- |
| **Operation** | **Operator** | **Example** |
| Addition | + | a + b |
| Subtraction | - | a – b |
| Multiplication | \* | a \* b |
| Division | / | a / b |
| Remainder | % | 7 % 5 = 2 |
| Increment | ++ | i++ |
| Decrement | -- | i-- |
| Unary minus | - | -a |

1. Compound Arithmetic Operators

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| --- | --- | --- |
| **Operation** | **Operator** | **Example** |
| Addition | += | a+=2  original value of a is incremented by 2 |
| Subtraction | -= | a-= 2  original value of a is decremented by 2 |

1. Comparison Operators

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| --- | --- | --- |
| **Operation** | **Operator** | **Example** |
| Equal to | == | if (a == b) |
| Not equal to | != | if (a != b) |
| Greater than | > | while (a > b) |
| Less than | < | while (a < b) |
| Greater than or equal to | >= | if (a >= b) |
| Less than or equal to | <= | while (a <= b) |

1. Logical Operators

|  |  |  |
| --- | --- | --- |
| **Operation** | **Operator** | **Example** |
| And | && | if (a && b) |
| Or | || | if (a || b) |
| Not | ! | if !a |

1. New, Unique Operators

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| **Operation** | **Operator** | **Example** |
| Closed range | in a…b | for index in 1…5 |
| Open range | a..<b | for i in 0…<count |

1. Bitwise Operators

|  |  |  |
| --- | --- | --- |
| **Operation** | **Operator** | **Example** |
| AND | & | a = b110011  b = b110100  c = a & b  c is b110000 |
| OR | | | a = b110011  b = b100100  c = a | b  c is b110111 |
| NOT | ~ | a = b110011  b = ~a  b is b001100 |
| EXCLUSIVE OR | ^ | a = b110011  b = b100110  c = a ^ b  c is b010101 |
| Left Shift | << | a = b110011  b = a << 2  b is b001100 |
| Right Shift | >> | a = b110011  b = a >> 3  b is b000110 |