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In [4]: #Arithmetic operators
#Addition
a = 234
b = 786
print("add:",a+b)

#Substraction
d = 45
e = 20
print("sub:",d-e)

#Multiplication
print("mul:",d*e)

#Division
print("div:",d/e)

#Modulus
print("modulus:",d%e)

#Exponential
j = 2
k = 3
print("exp:",j**k)

#Float division
print("fl div:", j//k)

add: 1020
sub: 25
mul: 900
div: 2.25
modulus: 5
exp: 8
fl div: 0
```

```
In [29]: #Assignment Operators
#Assignment Operator
x = 15
print("ass:", x)

#Addition Assignment
x += 5
print("add:", x)

#Substraction Assignment
x -= 6
print("sub:", x)

#Multiplication Assignment
x *= 9
print("mul:", x)

#Division Assignment
x /= 3
print("div:", x)

#Remainder Assignment
x %= 4
print("rem:", x)

#Exponent Assignment
x **= 3
print("exp:", x)

ass: 15
add: 20
sub: 14
mul: 126
div: 42.0
rem: 2.0
exp: 8.0
```

```
In [31]: #Comparsion Operators
a = 12
b = 46
#equal to operator
print(a==b)

#not equal to operator
print(a!=b)

#greater than the operator
print(a>b)

#less than the operator
print(a<b)

#greater than or equal to the operator
print(a>=b)

#less than or equal to the operator
print(a<=b)

False
True
False
True
False
True
```

```
In [35]: #Logical Operators
#and operator
print(67>3 and 23<20)

#or operator
print(5==5 or 5>=2)

#not operator
y = 8
print(not(y>6 and y<4))
print(not(y<4 or y>2))

False
True
True
False
```

```
In [37]: #Identity Operator
x1 = 6
x2 = 4
print(x1 is x2)
print(x1 is not x2)

False
True
```

```
In [39]: #Membership Operator
l = "welcome to the project"
m = [6,2,7,9,4,1,0]
print("t" in l)
print(6 in m)
print("z" in l)
print(7 not in m)

True
True
False
False
```

```
In [53]: #Bitwise Operator
a = 12
b = 9
#Bitwise and
print(a&b)

#Bitwise or
print(a|b)

#Bitwise xor
print(a^b)

#Bitwise not
print(~a)

#Bitwise left shift
print(a<<b)

#Biwise right shift
print(a>>b)

8
13
5
-13
6144
0
```

```
In [7]: #Precedence Operator
#Parentheses
a = (2+3)*6
print(a)

#Exponent
b = 2 ** 3 +6
print(b)

#Unary plus, Unary minus, Bitwise not
c = 5
plus = +c
print(plus)

minus = -c
print(minus)

bitwise = ~c
print(bitwise)

30
14
5
-5
-6
```

```
In [9]: a = 3+3-8+2*(4-1)
```

