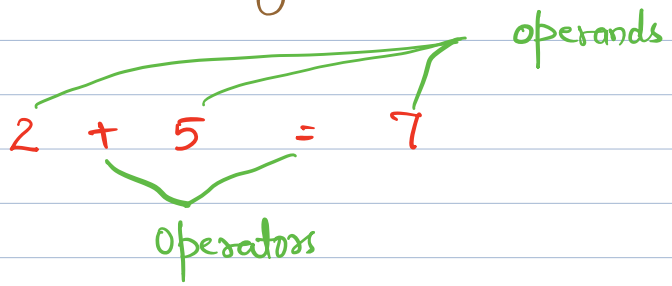
Operators :

" Don't ask until you fail by yourself "

i) Learning by doing
ii) Community learning.

★ Stack overflow



tomato = 50
Aata = 180

total = tomato + aata
= 50 + 180
= 230

i) Arithmetic Operators : (+, -, *, /, //, %, **)

add) (+)

```
x = 5
y = 3
```

⇒ x+y = 8

⇒ float + float, int + float → (float)

20 + 2.5 ⇒ 22.5

ii) Sub (-)

⇒ 5 - 2.5 ⇒ 2.5 (float)

⇒

```
x = 1
y = -2.0
print(x-y)
```

⇒ print (1 - (-2.0))

⇒ print (1 + 2.0)

⇒ 3.0

iii) multiply (*)

⇒ x = 2
y = 5

print (5 * 2) ⇒ 10

⇒ x = -4
y = -8

print (x * y)

print ((+4) * (+8))

print (32) ⇒ 32

iv) div(/) : This will always give you float

a = 5
b = 2

a / b ⇒

$$2\overline{)5}\,2.5$$
$$\underline{4}$$
$$10$$
$$\underline{10}$$
$$0$$

a / b = 2.5

=> $\frac{100}{25}$ => 4.0

=> $\frac{25}{0}$ => error (Zero Div error)

$\frac{0}{25}$ => 0.0

=> Power (**) / Exponential

=> a ** b => a^b

=> 2 ** 3 => 2^3

=> 8

=> 10 ** -1 => 10^{-1}

=> $\frac{1}{10^1}$

=> 0.1 Ans

* for any if this / if that questn first try yourself.

★ Integer Division / Floor division (//)

⇒ 100 chocolates ✆ you want to distribute them to 30 students.

⇒ $\frac{100}{30}$ ⇒ 3.3333 ⇒ 3

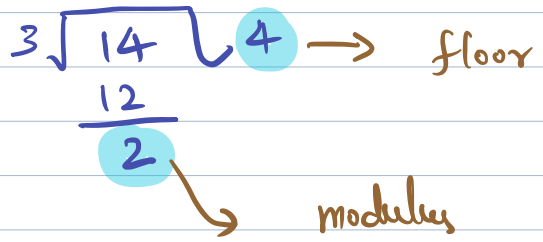
★ Modulus Operator (%): (Remainder)

★ After dividing the choco in (100 in 30 student) ✆. How many left.

$$30 \overline{)100} \; 3$$
$$90$$
$$10 \dashrightarrow \text{remainde}$$

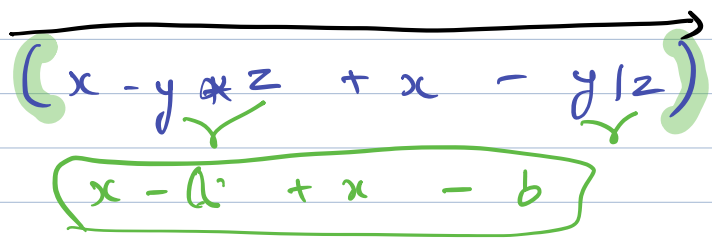
14 % 3 ⇒ Remaining choco after dist^{n}

14 // 3 ⇒ Divide whole number choco.



★ **BODMAS : Operator priority rule :**

Brackets ( )
Div , mul
Add , sub



=> Print (10 - 4 * 2 + 5 - 6/2)

=> 10 - 8 + 5 - 3.0

=> 2 + 2.0

=> 4.0

BEDMAS :

Brackets
Exponents
Div , Mul , Modulus , floor
Sub , Add

⇒ $x = 11$
$y = 2$
$z = 4$

res ⇒ $(x + y - z) ** (x \,\%\, z)$

⇒ $(11 + 2 - 4) ** (11 \,\%\, 4)$

$(9) ** (3)$ ⇒ 9^3

⇒ 729 Ans

$4 \overline{)\,11}$ ② ⇒ floor (11)

$\frac{8}{3}$ ⇒ modulus $(\%)$

★ Type Conversion :

```
n = input()
n = '5'        => str

m = int(n)
```

```
n = int(input())
```

=> n = 5.4

m = int(n) => int

=> 5

★ bool => 0, 0.0, "" => False

=> True => for every other possible value

```
bool('0')  => True
bool(0)    => False
```

★ Comparison Operator :

i) Geeta => 15 lac
ii) Geeta => 16 lac

=> i) == equal to

=> 2 == 2 => True

=> Both values equal => True

=> '2' == 2 => False

=> ii) != : not equal to

i) 2 != 2 => False

3 != 2 => True

=> <= & >=

=> 2 <= 2

True

2 < 2 x

2 == 2 ✓

=> 3 <= 2

3 < 2 ×

3 == 2 ×

False

=> 3 >= 2

3 > 2 ✓

3 == 2

True

Doubts :

x = 3

x = 5 ✓✓

print(x) => 5