***Operator**

This operator is used to perform two operations

1. Multiplying
2. Repeating

```
>>> n1=5*2
>>> print(n1)
10
>>> n2=1.5*2
>>> print(n2)
3.0
>>> n3="python"*3
>>> print(n3)
pythonpythonpython
>>> n4=[0]*10
>>> print(n4)
[0, 0, 0, 0, 0, 0, 0, 0, 0, 0]
>>> n5=10*"$"
>>> print(n5)
$$$$$$$$$$
>>> n5=[0]*100
>>> print(n5)
[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 0, 0, 0, 0, 0]
```

If two operands are numeric type, PVM performs multiplication.
If one operand is integer and another operand is sequence, PVM performs repeating of sequence.

Example:

```
# Write a program to find area of triangle
# area=0.5*base*height

base=float(input("Enter Base of the triangle"))
height=float(input("Enter Height of the triangle"))
area=0.5*base*height
```

```
print("Area of triangle is ",area)
```

Output:

```
Enter Base of the triangle1.2
Enter Height of the triangle1.4
Area of triangle is  0.84
```

Example:

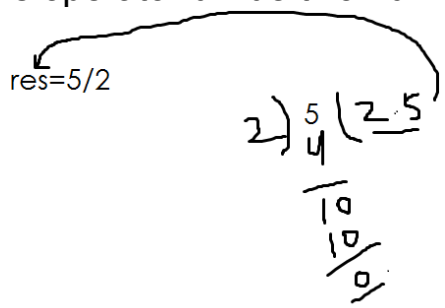
```
# write a program to convert dollar to rs

d=int(input("enter dollars "))
rs=d*80
print("Dollar",d,"Rs",rs)
```

Output:

```
enter dollars 2
Dollar 2 Rs 160
```

/ division operator or float division operator

This operator divide two numbers and return result in float type.




```
>>> r1=5/2
>>> print(r1)
2.5
>>> r2=4/2
>>> print(r2)
2.0
>>> r3=4/0
Traceback (most recent call last):
  File "<pyshell#17>", line 1, in <module>
    r3=4/0
ZeroDivisionError: division by zero
>>> r5=0/2
```

```
>>> print(r5)
0.0
>>> r6=1.5/1.0
>>> print(r6)
1.5
```

Example:

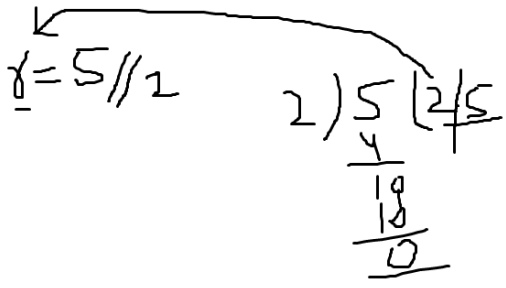
```
# write a program to input name and 2 subject marks
# calculate total,avg

name=input("Enter Name ")
sub1=int(input("Enter Subject1 Marks "))
sub2=int(input("Enter Subject2 Marks "))
tot=sub1+sub2
avg=tot/2
print(name,sub1,sub2,tot,avg)
```

Output:

```
Enter Name naresh
Enter Subject1 Marks 70
Enter Subject2 Marks 80
naresh 70 80 150 75.0
```

// Floor division or Integer Division

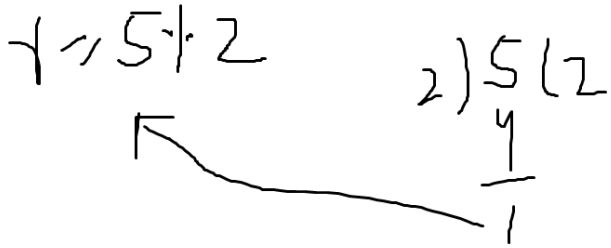
This divide two numbers and return result in integer type.




```
>>> a=5//2
print(a)
2
>>> b=5/2
>>> print(b)
2.5
```

```
>>> c=4//2
>>> print(c)
2
>>> d=4/2
>>> print(d)
2.0
>>> e=5.0//2
>>> print(e)
2.0
```

% Modulo Operator
This operator divides two numbers and return remainder.



```
>>> r1=5%2
>>> print(r1)
1
>>> r2=4%2
>>> print(r2)
0
```

** **exponent** operator or power of operator

```
>>> res1=5**2
>>> print(res1)
25
>>> res2=4**3
>>> print(res2)
64
>>> res3=10**-1
>>> print(res3)
0.1
```

Operators Precedence
The following table summarizes the operator precedence in Python, from highest precedence (most binding) to lowest precedence (least binding). Operators in the same box have the same precedence. Unless the syntax is explicitly given, operators are binary. Operators in the same box group left to right (except for exponentiation, which groups from right to left).

Operator	Description
(expressions...), [expressions...], {key: value...}, {expressions...}	Binding or parenthesized expression, list display, dictionary display, set display
x[index], x[index:index], x(arguments...), x.attribute	Subscription, slicing, call, attribute reference
await x	Await expression
**	Exponentiation [5]
+x, -x, ~x	Positive, negative, bitwise NOT
*, @, /, //, %	Multiplication, matrix multiplication, division, floor division, remainder [6]
+, -	Addition and subtraction
<<, >>	Shifts
&	Bitwise AND
^	Bitwise XOR
|	Bitwise OR
in, not in, is, is not, <, <=, >, >=, !=, ==	Comparisons, including membership tests and identity tests
not x	Boolean NOT
and	Boolean AND
or	Boolean OR
if – else	Conditional expression
lambda	Lambda expression
:=	Assignment expression

Home Work

1. Write a program to find area of circle
2. Write a program to find area rectangle
3. Write a program to find simple interest
4. Write a program to find the power of a number
5. Write a program to input temp in C and Convert into F
6. Write a program to input temp in F and Convert into C