

/ Float Division Operator

This operator is used for division. It is a binary operator and required 2 operands to perform operation

This operator divides two numbers and return result float type

Division Operator required two operands

1. Dividend
2. Divisor

It will perform division and return Quotient

This operator is applied only one numeric data types

Example:

```
>>> r1=5/2  
>>> print(r1)  
2.5  
>>> r2=4/2  
>>> print(r2)  
2.0
```

Example:

```
# Write a program to find simple interest  
# si=ptr/100  
  
p=float(input("Amount :"))  
t=int(input("Time :"))  
r=float(input("Rate :"))  
si=(p*t*r)/100  
  
print(f"Simple Interest {si}")
```

Output

```
Amount :5000  
Time :12  
Rate :1.5  
Simple Interest 900.0
```

f-string (OR) format string

f-string or format string is used for formatting output by inserting values. The values are inserted within string using replacement fields. These replacement fields are represented within curly braces {}

A string which is prefix with f or F is called f-string
f-string is introduced in python 3.6 version.

Example:

```
a=10
b=20
print(f'The sum of {a} and {b} is {a+b}')
print(f'The diff of {a} and {b} is {a-b}')
print(f'The product of {a} and {b} is {a*b}')
print(f'The Division of {a} and {b} is {a/b}')
rollno=1
name="naresh"
course="python"
fee=5000.0
print(f"Rollno:{rollno}
StudentName:{name}
StudentCourse:{course}
Student Fee:{fee}"")
```

Output

```
The sum of 10 and 20 is 30
The diff of 10 and 20 is -10
The product of 10 and 20 is 200
The Division of 10 and 20 is 0.5
Rollno:1
StudentName:naresh
StudentCourse:python
Student Fee:5000.0
```

...

You are developing a simple geometry calculator.
The user inputs the length and width of a rectangle,
and the program calculates and displays the perimeter and area.
length: The length of the rectangle.

width: The width of the rectangle.

The perimeter of the rectangle (using the formula: $2 * (\text{length} + \text{width})$).

The area of the rectangle (using the formula: $\text{length} * \text{width}$).

...

```
length=float(input("Length of Rectangle :"))
width=float(input("Width of Rectangle :"))
```

```
area=length*width
perimeter=2*(length+width)
```

```
print(f'Area of Rectangle is {area:.2f}')
print(f'Perimeter of Rectangle is {perimeter:.2f}')
```

Output

Length of Rectangle :1.5

Width of Rectangle :2.1

Area of Rectangle is 3.15

Perimeter of Rectangle is 7.20

Formatting characters

d	Decimal Integer
o	Octal integer
x	Hexadecimal integer
b	Binary Integer
f	Float in fixed notation
e	Float in exponent notation
s	String
c	Character

Example:

```
# Formatting Output
```

```
a=10
```

```
print(f'{a}')
```

```
print(f'{a:o}')
```

```
print(f'{a:x}')
```

```
print(f'{a:b}')
```

```
print(f'{a:d}')
```

```
b=1.5  
print(f'{b}')  
print(f'{b:f}')  
print(f'{b:e}')  
print(f'{b:E}')  
print(f'{b:.2f}')  
print(f'{b:.14f}')  
print(f'{b:.20f}')  
print(f'{b:.40f}')
```

```
c=1.123456789123456789123456789  
print(f'{c}')  
print(f'{c[:27]}')
```

```
d="naresh"  
print(f'{d:s}')  
print(f'{d}')
```

```
e='A'  
print(f'{e:s}')
```

```
f=65  
print(f'{f:d}')  
print(f'{f:c}')
```

Output

```
1.1234567891234568
1.123456789123456811552159706
naresh
naresh
A
65
A
```

Example:

""

You are designing a car rental system.
The car charges a fixed rate per kilometer traveled.
The user inputs the number of kilometers driven and
the rate per kilometer. Your program should calculate:

The total cost for the car rental based on the
kilometers driven.

kilometers: The number of kilometers driven.

rate: The rate charged per kilometer.

The total rental cost for the drive.

""

```
kilometers=float(input("Number of Kilometers Driven :"))
rate=float(input("Rate Per Kilometer "))
```

```
total_cost=kilometers*rate
```

```
print(f"The number of kilometers driven {kilometers}")
The rate charged per kilometer {rate}
```

```
The total rental cost {total_cost:.2f}""")
```

Output

Number of Kilometers Driven :120

Rate Per Kilometer 15

The number of kilometers driven 120.0

The rate charged per kilometer 15.0

The total rental cost 1800.00

Example:

```
# Currency Converter
```

```
dollar=int(input("Dollars :"))
rs=dollar*85

print(f'Dollar={dollar} and Rs={rs}')

dollar=int(rs/85)

print(f'Rs={rs} and Dollar={dollar:d}')
```

Output

```
Dollars :5
Dollar=5 and Rs=425
Rs=425 and Dollar=5
```

```
""
```

You are building a restaurant bill calculator.
The user inputs the cost of the meal, the tip percentage,
and any applicable taxes. Your program should:
Add the tip and tax to the cost of the meal.
Calculate the total amount to pay.
meal_cost: The cost of the meal.
tip_percentage: The percentage to tip.
tax_percentage: The tax percentage.
The total bill (meal cost + tip + tax).

```
""
```

```
meal_cost=int(input("The Cost of the meal "))
tip_percentage=float(input("The percentage to tip."))
tax_percentage=float(input("The tax percentage"))

tip=meal_cost*tip_percentage
tax=meal_cost*tax_percentage
tot_bill=meal_cost+tip+tax

print(f"Meal Cost {meal_cost}
Tip {tip}
Tax {tax}
Total Bill {tot_bill}")
```

Output

The Cost of the meal 200

The percentage to tip.0.1

The tax percentage0.16

Meal Cost 200

Tip 20.0

Tax 32.0

Total Bill 252.0

Develop Temp Conversion App

Celsius to Fahrenheit ==> $F = (C \times 9/5) + 32.$

Fahrenheit to Celsius ==> $C = (F-32)\times(5/9)$