 # Ramesh's basic salary is input through the keyboard. His dearness allowance is 40% of basic salary, and house rent allowance is 20% of basic salary. Write a program to calculate his gross salary.

```
In [ ]:  basic_sal = eval(input("Enter the basic salary : "))
         dareness_allowance = basic_sal * 40 / 100
         hra_allowance = basic_sal * 20 / 100

         print(f"Basic salary : {round(basic_sal, 2)}")
         print(f"Dareness Allowance @ 40 % : {round(dareness_allowance, 2)}")
         print(f"HRA Allowance @ 20 % :{round(hra_allowance, 2)}")
         print(f"Total Gross Salary {round(basic_sal + dareness_allowance + hra_allowance, 2)}")
```

```
Basic salary : 10000
Dareness Allowance @ 40 % : 4000.0
HRA Allowance @ 20 % :2000.0
Total Gross Salary 16000.0
```

 # The distance between two cities (in km.) is input through the keyboard. Write a program to convert and print this distance in meters, feet, inches and centimeters.

```
In [ ]:  distance_kilometer = eval(input("Enter the distance in Kilometer : "))
         distance_meter = round(distance_kilometer * 1000, 0)
         distance_feet = round(distance_meter * 3.28, 2)
         distance_inch = round(distance_feet * 12, 2)

         print(f"Distance between two cities in kilometer : {distance_kilometer}")
         print(f"Distance between two cities in meter : {distance_meter}")
         print(f"Distance between two cities in feet : {distance_feet}")
         print(f"Distance between two cities in inch : {distance_inch}")
```

```
Distance between two cities in kilometer : 2
Distance between two cities in meter : 2000
Distance between two cities in feet : 6560.0
Distance between two cities in inch : 78720.0
```

 # If the marks obtained by a student in five different subjects are input through the keyboard, find out the aggregate marks and percentage marks obtained by the student. Assume that the maximum marks that can be obtained by a student in each subject is 100.

```
In [ ]:  first_language = eval(input("Enter the mark of first language: "))
         second_language = eval(input("Enter the mark of second language: "))
         third_language = eval(input("Enter the mark of third language: "))
         math = eval(input("Enter the mark of math: "))
         science = eval(input("Enter the mark of science: "))
```

```python
total_mark = first_language + second_language + third_language + math + science
full_mark = 100 * 5;

print("Marks obtained by student")
print(f"First language : {first_language}")
print(f"Second language : {second_language}")
print(f"Third language : {third_language}")
print(f"Math : {math}")
print(f"science : {science}")

print(f"Total mark {total_mark}")
print(f"Percentage is: {round(total_mark / full_mark * 100, 2)} %")
```

```
Marks obtained by student
First language : 98
Second language : 95
Third language : 78
Math : 85
science : 85
Total mark 441
Percentage is: 88.2 %
```

 # Temperature of a city in Fahrenheit degrees is input through the keyboard. Write a program to convert this temperature into Centigrade degrees.

```python
In [ ]: temp_fahrenheit = eval(input("Enter the mark of temperature in Fahrenheit: "))
        temp_celsius = round(((temp_fahrenheit - 32) * 5)/9 , 2)
        print(f"{temp_fahrenheit} degree Fahrenheit  = {temp_celsius} degree celsius")
```

```
98.6 degree Fahrenheit  = 37.0 degree celsius
```

 # The length & breadth of a rectangle and radius of a circle are input through the keyboard. Write a program to calculate the area & perimeter of the rectangle, and the area circumference of the circle

```python
In [ ]: length = eval(input("Enter the length: "))
        breadth = eval(input("Enter the breadth: "))
        area = length * breadth
        perimeter = 2 * (length + breadth)
        print(f"area of length {length} and breadth: {breadth} is {round(area, 2)} and perimeter: {round(perimeter, 2)}")
```

```
area of length 10 and breadth: 20 is 200 and perimeter: 60
```

```python
In [ ]: import math
        input_radius = eval(input("Enter the radius : "))
        area = math.pi * input_radius * input_radius
        print(f"The area of the circle with radius {input_radius} is {round(area, 2)}")
```

The area of the circle with radius 5 is 78.54

 # Two numbers are input through the keyboard into two locations C and D. Write a program to interchange the contents of C and D.

```
In [ ]:  location_c = input("Enter the first location name")
         location_d = input("Enter the second location name")

         print(f"Before interchanging the value first location: {location_c} and second location : {location_d}")
         temp_location = location_c
         location_c = location_d
         location_d = temp_location
         print(f"After interchanging the value first location: {location_c} and second location : {location_d}")
```

Before interchanging the value first location: Delhi and second location : Mumbai
After interchanging the value first location: Mumbai and second location : Delhi

 # If a five-digit number is input through the keyboard, write a program to reverse the number.

```
In [ ]:  number = input("Enter a five-digit number:")
         print("Entered value is : ", number)
         if(len(number) == 5 and number.isdigit()):
             reverse_number = number[::-1]
             print("Reversed Number :", reverse_number)
         else:
             print("Not a 5 digit number")
```

Entered value is : 56327
Reversed Number : 72365

 # If a four-digit number is input through the keyboard, write a program to obtain the sum of the first and last digit of this number.

```
In [ ]:  number = input("Enter a four-digit number:")
         print("Entered value is : ", number)
         if(len(number) == 4 and number.isdigit()):
             first_digit = int(number[0])
             last_digit = int(number[3])
             # first_digit = int(number[-4])
             # last_digit = int(number[-1])
             print("Sum of first and last digit = ", first_digit + last_digit)
         else:
             print("Not a 4 digit number")
```

Entered value is : 2654
Sum of first and last digit = 6

 # In a town, the percentage of maen is 52. The percentage of total literacy is 48. If total percentage of literate men is 35 of the total population, write a program to find the total number of illiterate men and women if the population of the town is 80,000.

```python
total_population = 80000
men_count = total_population * 52 /100
total_literacy = total_population * 48 /100
men_literacy = total_population * 35 /100

print(f"total_population : {total_population}")
print(f"men_count : {men_count}")
print(f"total_literacy : {total_literacy}")
print(f"men_literacy : {men_literacy}")
print(f"women_literacy : {total_literacy - men_literacy}")
```

```
total_population : 80000
men_count : 41600.0
total_literacy : 38400.0
men_literacy : 28000.0
women_literacy : 10400.0
```

 # A cashier has currency notes of denominations 10, 50 and 100. If the amount to be withdrawn is input through the keyboard in hundreds, find the total number of currency notes of each denomination the cashier will have to give to the withdrawer.

```python
withdraw_amount_hundreds = eval(input("Enter thye amount to be withdrawn in hundreds : "))

note_100 = withdraw_amount_hundreds // 100

if(note_100 > 0) :
    print("note_100 : ", note_100)

remaining_amount = withdraw_amount_hundreds % 100
note_50 = remaining_amount // 50

if(note_50 > 0) :
    print("note_50 : ", note_50)

remaining_amount = withdraw_amount_hundreds % 50
note_10 = remaining_amount // 10
if(note_10 > 0) :
    print("note_10 : ", note_10)
```

```
note_100 :   2
note_50 :   1
note_10 :   1
```