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In [3]: # 1. 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.
def Salary():
    ram_sal=eval(input("Enter the basic Salary of Ramesh"))
    da=(40*ram_sal)/100
    hra=(20*ram_sal)/100
    gross_sal=ram_sal+da+hra
    print(f"The total salary of Ramesh is {gross_sal} which consists of Dear Allowance {da} and House Rent Allowance {hra}")
Salary()
```

Enter the basic Salary of Ramesh100000
The total salary of Ramesh is 160000.0 which consists of Dear Allowance 40000.0, house rent allowance is 20000.0

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In [6]: # 2. 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.
def Dist():
    City_1=eval(input("Enter the distance between two Cities in km"))
    meters= City_1/1000
    feet =meters/0.3048
    inches= feet*12
    cm=inches/2.54
    print(f"The distance between cities in Km is {City_1}, in meters is {meters}, in feet is {feet}, in inches is {inches}, in centimeter is {cm}")
Dist()
```

Enter the distance between two Cities in km58
The distance between cities in Km is 58, in meters is 0.058, in feet is 0.1900801677922078, in inches is 2.283464566929134, in centimeter is 0.8990017980035959

In [12]: *# 3. If the marks obtained by a student in five different subjects are input then 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.*

```
def Marks(m1,m2,m3,m4,m5):
    agg=(m1+m2+m3+m4+m5)/5
    per=agg
    print(f"The aggregate score is {agg} and the total percentage is {per}%")
Marks(eval(input("Enter the marks of subject m1: ")),eval(input("Enter the mark
```

Enter the marks of subject m1: 56
 Enter the marks of subject m2: 56
 Enter the marks of subject m3: 56
 Enter the marks of subject m4: 65
 Enter the marks of subject m5: 56
 The aggregate score is 57.8 and the total percentage is 57.8%

In [15]: *# 4. Temperature of a city in Fahrenheit degrees is input through the keyboard. Write a program to convert this temperature into Centigrade degrees.*

```
def city_temp():
    F=eval(input("Enter the Temperature of the city in Fahrenheit"))
    C=(F-32)/1.8
    print(f"The Temperature of the city in Celcius is {C} ")
city_temp()
```

Enter the Temperature of the city in Fahrenheit: 118
 The Temperature of the city in Celcius is 47.77777777777778

In [18]: *# 5. 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.*

```
import time
def Gemetry():
    length=eval(input("Enter the length of the reactangle: "))
    time.sleep(1)
    breadth=eval(input("Enter the breadth of the reactangle: "))
    time.sleep(1)
    radius = eval(input("Enter the radius of the cirle: "))
    time.sleep(1)
    react= length*breadth
    cir=2*3.14*radius
    time.sleep(2)
    print(f"The area of a rectangle is {react} and the area of teh circle is {c")
Gemetry()
```

Enter the length of the reactangle: 89
 Enter the breadth of the reactangle: 89
 Enter the radius of the cirle: 56
 The area of a rectangle is 7921 and the area of teh circle is 351.68

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In [22]: # 6. Two numbers are input through the keyboard into two locations C and D.
# Write a program to interchange the contents of C and D.
import time
def interchange():
    C= eval(input("Enter the value of C: "))
    D= eval(input("Enter the value of D: "))
    time.sleep(1)
    print(f"The value of C is {C} and the value of D is {D}")
    X=C
    C=D
    D=X
    time.sleep(2)
    print(f"The value of C is {C} and the value of D is {D} after switching")
interchange()
```

```
Enter the value of C: 89
Enter the value of D: 98
The value of C is 89 and the value of D is 98
The value of C is 98 and the value of D is 89 after switching
```

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In [29]: # 7. If a five-digit number is input through the keyboard, write a program to r
n1 = eval(input("Enter a five-digit number: "))

if 10000 <= n1 <= 99999:

    reversed_n1 = int(str(n1)[::-1])
    print("Reversed number:", reversed_n1)
else:
    print("Please enter a valid five-digit number.")
```

```
Enter a five-digit number: 79845
Reversed number: 54897
```

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In [30]: # 8. 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

nu2 = int(input("Enter a four-digit number: "))
if 1000 <= nu2 <= 9999:
    first_digit = nu2 // 1000
    last_digit = nu2 % 10
    sum_first_last = first_digit + last_digit
    print("Sum of first and last digit:", sum_first_last)
else:
    print("Please enter a valid four-digit number.")
```

```
Enter a four-digit number: 4556
Sum of first and last digit: 10
```

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In [ ]: # 9. In a town, the percentage of men 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.  
  
total_population = 80000  
percentage_men = 52  
percentage_total_literacy = 48  
percentage_literate_men = 35  
  
men_population = (percentage_men / 100) * total_population  
literate_men = (percentage_literate_men / 100) * total_population  
literate_women = (percentage_total_literacy / 100) * total_population - literate_men  
illiterate_men = men_population - literate_men  
illiterate_women = total_population - literate_men - literate_women  
print("Total number of illiterate men:", int(illiterate_men))  
print("Total number of illiterate women:", int(illiterate_women))
```

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In [ ]: # 10. 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  
# to give to the withdrawer.  
  
amount_in_hundreds = eval(input("Enter the amount to be withdrawn in hundreds:"))  
  
num_100s = amount_in_hundreds  
num_50s = (amount_in_hundreds % 10) * 5  
num_10s = (amount_in_hundreds % 5) * 10  
  
print("Number of 100s:", num_100s)  
print("Number of 50s:", num_50s)  
print("Number of 10s:", num_10s)
```