

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.

```
In [4]: try:
        r_salary=eval(input("enter your basic salary"))
        dr_allowance= r_salary*0.4
        re_allowance=r_salary*0.2
        gross_salary= round(r_salary+dr_allowance+re_allowance,2)
        print(f"ramesh gross salary is:{gross_salary}")
    except Exception as e:
        print(e)
```

ramesh gross salary is:16000.0

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.

```
In [5]: try:
        dis_km=eval(input("enter distance between two city in km"))
        dis_meter=dis_km*1000
        dis_feet=dis_km*3280.84
        dis_inch=dis_feet*12
        dis_cm=dis_meter*100
        print(f"kilometer to meter:{dis_meter},feet:{dis_feet},inch:{dis_inch},centimet
    except Exception as e:
        print(e)
```

kilometer to meter:1000000,feet:3280840.0,inch:39370080.0,centimeter:100000000

3. 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 [6]: try:
        fst_sub=eval(input("enter your marks:"))
        snd_sub=eval(input("enter your marks:"))
        trd_sub=eval(input("enter your marks:"))
        frt_sub=eval(input("enter your marks:"))
        fiv_sub=eval(input("enter your marks:"))
        total_marks= fst_sub+snd_sub+trd_sub+frt_sub+fiv_sub
        pernt_marks=total_marks/5
        print(f"total marks:{total_marks}, percentage marks:{pernt_marks}")
    except Exception as e:
        print(e)
```

total marks:3145, percentage marks:629.0

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

```
In [8]: try:
    frhit_temp=eval(input("Enter temprature in fahrenheit"))
    cel_temp=(frhit_temp-32)*5/9
    print(f"Centegrade temperture of city is:{cel_temp}")
except Exception as e:
    print(e)
```

Centegrade temperture of city is:4.4444444444444445

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.

```
In [9]: try:
    lenth=eval(input("Enter the length of rectangle:"))
    brth=eval(input("Enter the breath of rectangle:"))
    area_rect=lenth*brth
    peri_rect=(lenth+brth)*2
    print(f"the perimeter of rectangle is:{peri_rect}, the area of rectangle is:{ar
import math
pi=math.pi
cir_radius=eval(input("Enter the radius of circle:"))
area_cir= pi*cir_radius*cir_radius
cirfnc_cir=2*pi*cir_radius
    print(f"the area of circle is:{area_cir},the circumference is:{cirfnc_cir}")
except Exception as e:
    print(e)
```

the perimeter of rectangle is:9134, the area of rectangle is:5211922

the area of circle is:172021.0473399627,the circumference is:1470.2653618800232

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.

```
In [12]: try:
    c_content=eval(input("write your massage:"))
    d_content=eval(input("write your massage:"))
    c_content,d_content=d_content,c_content
    print(c_content)
    print(d_content)
except Exception as e:
    print(e)
```

36

45

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

```
In [14]: try:
    num=int(input("Enter the five-digit number:"))
```

```

f1=num//10000
f2=num%10000
f3=f2//1000
f4=f2%1000
f5=f4//100
f6=f4%100
f7=f6//10
f8=f6%10
print(f8,f7,f5,f3,f1,sep='')
except Exception as e:
    print(e)

```

98765

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.

```

In [15]: try:
    num=int(input("enter the four-digit number:"))
    num1=num//1000
    num2=num%10
    sum=num1+num2
    print(f" the sum of frist and last number is:{sum}")
except Exception as e:
    print(e)

```

the sum of frist and last number is:15

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.

```

In [16]: try:
    total_population=int(input("Enter population"))
    man_population=total_population*eval(input("enter man presentage"))/100
    total_lit_man=total_population*eval(input("enter lit_man presentage"))/100
    literacy=total_population*eval(input("enter literacy population"))/100
    women_population=total_population-man_population
    illiterate=total_population-literacy
    illter_man=man_population-total_lit_man
    lit_women=literacy-total_lit_man
    illter_women=women_population-lit_women
    total_illiterate=illter_man+illter_women
    print(f"total illiterate population is:{total_illiterate}")
except Exception as e:
    print(e)

```

total illiterate population is:41600.0

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 have to give to the withdrawer

```
In [19]: try:
import random
with_amount=int(input())
hudr_no=random.randint(1,10)
fift_no=random.randint(2,8)
ten_no=random.randint(5,10)
number_of_note=hudr_no+fift_no+ten_no
with_amount=100*hudr_no+50*fift_no+10*ten_no
print(f"total no of note {hudr_no},{fift_no},{ten_no} is {number_of_note}")
except Exception as e:
    print(e)
```

total no of note 10,7,6 is 23