1. Take two integers as input and divide the first by the second. Prevent division by zero.

Ans:

num1= int(input("Enter the 1st number: "))

num2= int(input("Enter the 2nd number: "))

if num2==0:

print("We can't divide a number by zero.")

else:

print(f"Division of 1st number by 2nd number is {num1/num2}")

1. Write a program to find the maximum number amongst three numbers.

Ans:

num1= int(input("Enter the 1st number: "))

num2= int(input("Enter the 2nd number: "))

num3= int(input("Enter the 3rd number: "))

if num1 > num2 and num1 > num3 :

print(f"{num1} is greater.")

elif num2 > num1 and num2 > num3 :

print(f"{num2} is greater.")

elif num3 > num1 and num3 > num2 :

print(f"{num3} is greater.")

else:

print("All numbers are equal")

1. Write a Program to implement a simple calculator to Add, Subtract, Multiply and Divide the two numbers. Also add scientific operations in that.

Ans:

num1 = int(input("Enter the 1st number: "))

num2 = int(input("Enter the 2nd number: "))

operator\_value = int(input("Enter 1 for add, 2 for subtract, 3 for multiply, 4 for divide: "))

if operator\_value == 1:

print(f"Sum of the numbers is {num1 + num2}")

elif operator\_value == 2:

print(f"Subtraction of the numbers is {num1 - num2}")

elif operator\_value == 3:

print(f"Multiplication of the numbers is {num1 \* num2}")

elif operator\_value == 4:

if num2 == 0:

print("We can't divide a number by zero")

else:

print(f"Sum of the numbers is {num1 / num2}")

else:

print("Pls enter the correct operator value.")

1. Consider an organization, in which DA (Dearness Allowance) of an employee is calculated depending on the basic salary (category) of employee.

Write a program to input basic salary of an employee and calculate DA as per following rules:

For Basic Salary >= 10000 and <= 20000, 10% of basic salary.

For Basic Salary > 20000 and <= 50000, 15% of basic salary.

For Basic Salary > 50000 and <= 100000, 20% of basic salary.

For Basic Salary > 100000, DA is not given.

Ans:

salary = float(input("Enter salary of employee: "))

if 10000 <= salary <= 20000:

print(f"DA of employee is {salary\*10/100} rupees.")

elif 20000 < salary <= 50000:

print(f"DA of employee is {salary\*15/100} rupees.")

elif 50000 < salary <= 100000:

print(f"DA of employee is {salary\*20/100} rupees.")

else:

print("DA is not given.")

1. Write a Program to check whether a year given as input by user is Leap Year or not.

Ans:

year=int(input("enter the year:"))

if year%400==0:

print("Year is leap")

elif year % 100 == 0:

print("Year is not leap")

elif year % 4 == 0:

print("Year is leap ")

else:

print("Year is not leap")

1. Write a program to check whether an alphabet entered by user is vowel or consonant.

Ans:

alphabet = input("Enter the alphabet: ").lower()

if alphabet == 'a' or alphabet == 'e' or alphabet == 'i' or alphabet == 'o' or alphabet == 'u':

print("Entered alphabet is vowel")

else:

print("Entered alphabet is consonant")

1. The marks obtained by a student in 5 different subjects are input through the keyboard. The student gets a division as per the following rules:

Percentage above or equal to 60 - First division

Percentage between 50 and 59 - Second division

Percentage between 40 and 49 - Third division

Percentage less than 40 - Fail

Write a program to calculate the division obtained by the student.

Ans:

lst = list(map(int,input("Enter the marks of five subjects: ").split()))

sum=0

a = None

for marks in lst:

sum+=marks

if marks < 40:

a=0

sum=(sum\*100)/500

if a==0:

print("You are fail.")

elif 40 <= sum <=49:

print("You get third division.")

elif 50 <= sum <=59:

print("You get second division.")

elif sum >=60 :

print("You get first division.")