

01) WAP to check whether the given number is positive or negative.

```
In [3]: a=int(input("Enter a Number:"))

if(a>=0):
    if(a>0):
        print(a,"is Positive")
    else:
        print(a,"is Zero")
else:
    print(a,"is Negative")
```

Enter a Number:0
0 is Zero

02) WAP to check whether the given number is odd or even

```
In [5]: a=int(input("Enter a Number:"))

if(a%2==0):
    print("Number is Even")
else:
    print("Number is Odd")
```

Enter a Number:13
Number is Odd

03) WAP to find out largest number from given two numbers using simple if and ternary operator.

```
In [10]: a=int(input("Enter a value of A:"))
b=int(input("Enter a value of B:"))

if(a>b):
    print(a,"is largest")
else:
    print(b,"is largest")

c=a if (a>b) else b

print(c,"is largest")
```

Enter a value of A:23
Enter a value of B:34
34 is largest
34 is largest

04) WAP to find out largest number from given three numbers.

```
In [13]: a=int(input("Enter a value of A:"))
b=int(input("Enter a value of B:"))
c=int(input("Enter a value of C:"))

if(a>b and a>c):
    print(a,"is largest")
elif(b>c):
    print(b,"is largest")
else:
    print(c,"is largest")
```

Enter a value of A:3
Enter a value of B:4
Enter a value of C:2
4 is largest

05) WAP to check whether the given year is leap year or not.

[If a year can be divisible by 4 but not divisible by 100 then it is leap year but if it is divisible by 400 then it is leap year]

```
In [ ]: y=int(input("Enter Year:"))

if(y%4==0):
    if(y%400==0 and y%100!=0):
        print("Not Leap Year")
    else:
        print("Leap Year")
else:
    print("Not Leap Year")
```

06) WAP in python to display the name of the day according to the number given by the user

```
In [1]: d=int(input("Enter a number 1 to 7:"))

if(d==1):
    print("Monday")
elif(d==2):
    print("Tuesday")
elif(d==3):
    print("Wednesday")
elif(d==4):
    print("Thursday")
elif(d==5):
    print("Friday")
elif(d==6):
    print("Saturday")
elif(d==7):
    print("Sunday")
else:
    print("please enter 1 to 7")
```

Enter a number 1 to 7:3
Wednesday

07) WAP to implement simple calculator which performs (add,sub,mul,div) of two no. based on user input.

```
In [7]: n1=int(input("Enter a Number 1:"))
n2=int(input("Enter a Number 2:"))

op=input("Enter a Operation(like:add,sub,mul,div):")

if(op=="add"):
    print("Addition: ",n1+n2)
elif(op=="sub"):
    print("Subtraction: ",n1-n2)
elif(op=="mul"):
    print("Multiplication: ",n1*n2)
elif(op=="div"):
    print("Division: ",n1/n2)
else:
    print("Please Enter valid string!")
```

Enter a Number 1:1
Enter a Number 2:2
Enter a Operation(like:add,sub,mul,div):div
Division: 0.5

08) WAP to calculate electricity bill based on following criteria. Which takes the unit from the user.

- First 1 to 50 units – Rs. 2.60/unit
- Next 50 to 100 units – Rs. 3.25/unit
- Next 100 to 200 units – Rs. 5.26/unit
- above 200 units – Rs. 8.45/unit

```
In [14]: Units=int(input("Enter a Electricity bill Units:"))

if(Units>=1 and Units<=50):
    print("Electricity bill charge:",Units*2.6)

elif(Units>50 and Units<=100):
    print("Electricity bill charge:",130+(Units-50)*3.25)

elif(Units>100 and Units<=200):
    print("Electricity bill charge:",292.5+(Units-100)*5.26)

elif(Units>200):
    print("Electricity bill charge:",818.5+(Units-200)*8.45)
```

Enter a Electricity bill Units:350
Electricity bill charge: 2086.0

01) WAP to read marks of five subjects. Calculate percentage and print class accordingly.

Fail below 35
Pass Class between 35 to 45
Second Class
between 45 to 60
First Class between 60 to 70
Distinction if more than 70

```
In [16]: sub1=int(input("Enter marks of Subject 1:"))
sub2=int(input("Enter marks of Subject 2:"))
sub3=int(input("Enter marks of Subject 3:"))
sub4=int(input("Enter marks of Subject 4:"))
sub5=int(input("Enter marks of Subject 5:"))
```

```
avg=(sub1+sub2+sub3+sub4+sub5)/5;
```

```
print("percentage", avg, "%")
if(avg<=35):
    print("Fail")
elif(avg>35 and avg<=45):
    print("Pass")
elif(avg>45 and avg<=60):
    print("Second Class")
elif(avg>60 and avg<=70):
    print("First Class")
elif(avg>70):
    print("Distinction")
```

Enter marks of Subject 1:80
Enter marks of Subject 2:80
Enter marks of Subject 3:80
Enter marks of Subject 4:80
Enter marks of Subject 5:80
percentage 80.0 %
Distinction

02) WAP to find out the Maximum and Minimum number from given 4 numbers.

```
In [24]: n1=int(input("Enter a Number 1:"))
n2=int(input("Enter a Number 2:"))
n3=int(input("Enter a Number 3:"))
n4=int(input("Enter a Number 4:"))
```

```
print("Maximum num is",n1 if (n1>n2 and n1>n3 and n1>n4) else (n2 if (n2>n3 and n2>n1 and n2>n4) else n3 if (n3>n2 and n3>n4) else n4))
print("Minimum num is",n1 if (n1<n2 and n1<n3 and n1<n4) else (n2 if (n2<n3 and n2<n1 and n2<n4) else n3 if (n3<n2 and n3<n4) else n4))
```

Enter a Number 1:3
Enter a Number 2:4
Enter a Number 3:5
Enter a Number 4:6
Maximum num is 6
Minimum num is 3

03) WAP to input an integer number and check the last digit of number is even or odd.

```
In [26]: N=int(input("Enter a Number:"))  
  
N=N%10  
  
if(N%2==0):  
    print("last digit of number is even")  
else:  
    print("last digit of number is odd")
```

```
Enter a Number:1234  
last digit of number is even
```

04) WAP to determine the roots of the equation $ax^2+bx+c=0$.

```
In [28]: a = float(input('Enter a: '))  
b = float(input('Enter b: '))  
c = float(input('Enter c: '))  
  
d = (b**2) - (4*a*c)  
  
sol1 = (-b-cmath.sqrt(d))/(2*a)  
sol2 = (-b+cmath.sqrt(d))/(2*a)  
print('The solution are {0} and {1}'.format(sol1,sol2))
```

```
Enter a: 1  
Enter b: 2  
Enter c: 3  
The solution are (-1-1.4142135623730951j) and (-1+1.4142135623730951j)
```

```
In [ ]:
```