

## Decision making statements

Q.1)write a python programm if the number given is odd or even

```
In [1]: n=int(input())
        if n%2==0:
            print("is even")
        else:
            print("is odd")
```

6  
is even

Q.2)write a python programm to determine if a given integer number is positive, negative or zero.

```
In [6]: number = int(input("Enter a number:"))
        if number > 0:
            print(f"{number} is a postive number.")
        elif number<0:
            print(f"{number} is a negative number.")
        else:
            print(f"{number} is zero")
```

Enter a number:0  
0 is zero

Q.3)Write a python programm to Grade evaluation based on marks. Marks can be converted into grades using the following rules.

```
In [7]: marks = int(input("Enter overall percentage:"))
        if marks >= 90:
            print("Grade :A")
        elif marks >=80:
            print("Grade :B")
        elif marks >=70:
            print("Grade :C")
        elif marks >=60:
            print("Grade :D")
        elif marks <60:
            print("FAIL!!")
```

Enter overall percentage:60  
Grade :D

Q.4)Write a python a program to check wheter the year is leap or not.

```
In [9]: year = int(input("Enter year:"))
        if (year%4==0 and year%100!=0) or (year%400==0):
            print(f"{year} is a leap year")
        else:
            print(f"{year} is not a leap year")
```

Enter year:2024  
2024 is a leap year

Q.5)Write a python programm to find the largest of three numbers using nested if statements.

```
In [12]: num1 = float(input("Enter the first number:"))
num2 = float(input("Enter the second number:"))
num3 = float(input("Enter the third number:"))

if num1>=num2:
    if num1>=num3:
        print(f"{num1} is greater.")
    else:
        print(f"{num3} is greater.")
else:
    if num2>=num3:
        print(f"{num2} is greater.")
    else:
        print(f"{num3} is greater.")
```

Enter the first number:52  
Enter the second number:53  
Enter the third number:51  
53.0 is greater.

Q.6) check whether the number is entered is positive, negative or zero and further determine if its even or odd.

```
In [15]: num = int(input("Enter a number:"))
if num>0:
    if num%2==0:
        print("Number is positive and even")
    else:
        print("Number is positive and odd")
elif num<0:
    if num%2==0:
        print("Number is Negative and even")
    else:
        print("Number is Negative and odd")
else:
    print("Number is zero")
```

Enter a number:-2  
Number is Negative and even

Q.7) Write a program to find the sum of n natural numbers.

```
In [22]: n=int(input("Enter a number:"))
a=0
for i in range(1,n+1):
    a=a+i
print(a)
```

Enter a number:5  
15

Q.8)Write multiplication in table format.

```
In [24]: n=int(input("Enter a number:"))  
a=1  
for i in range(1,11):  
    a=n*i  
    print(a)
```

Enter a number:5

5  
10  
15  
20  
25  
30  
35  
40  
45  
50

In [ ]: