

#Q10.

```
a = input("Enter a character: ")
```

```
if a.isupper():
```

```
    print("Uppercase")
```

```
elif a.islower():
```

```
    print("Lowercase")
```

```
elif a.isdigit():
```

```
    print("Digit")
```

```
else:
```

```
    print("Special character")
```

#Q11.

```
for i in range(1, 101):  
    if i % 3 == 0 and i % 5 != 0:  
        print(i, end=" ")
```

#Q12.

```
N = int(input("Enter N: "))  
total = sum(i for i in range(1, N+1) if i % 2  
            == 0)  
print("Sum of even numbers =", total)
```

#Q13.

```
N = int(input("Enter N: "))  
total = sum(i for i in range(1, N+1) if i % 2 !=  
            0)  
print("Sum of odd numbers =", total)
```

#Q14.

```
num = int(input("Enter a number: "))  
for i in range(1, 11):  
    print(f"{num} x {i} = {num*i}")
```

#Q2.

```
num = int(input("Enter a number: "))  
if num % 2 == 0:  
    print("Even number")  
else:  
    print("Odd number")
```

#Q9.

```
marks = int(input("Enter marks: "))  
if marks >= 90:  
    print("Grade A")  
elif marks >= 75:  
    print("Grade B")  
elif marks >= 50:  
    print("Grade C")  
else:  
    print("Fail")
```

#Q16.

```
num = int(input("Enter a number: "))  
fact = 1  
for i in range(1, num+1):  
    fact *= i  
print("Factorial =", fact)
```

#Q17.

```
num = int(input("Enter a number: "))  
s = sum(int(d) for d in str(num))  
print("Sum of digits =", s)
```

#Q18.

```
num = input("Enter a number: ")  
if num == num[::-1]:  
    print("Palindrome")  
else:  
    print("Not Palindrome")
```

#Q19.

```
num = int(input("Enter a number: "))
power = len(str(num))
s = sum(int(d)**power for d in str(num))
print("Armstrong" if s == num else "Not
      Armstrong")
```

#Q20. |

```
n = int(input("Enter number of terms: "))
a, b = 0, 1
for _ in range(n):
    print(a, end=" ")
a, b = b, a+b
```



#Q21.

```
num = int(input("Enter a number: "))
for i in range(2, num+1):
    if num % i == 0:
        print("Smallest divisor >", i, "is"i)
        break
```

#Q22.

```
num = input("Enter a number: ")
digit = input("Enter digit to count: ")
print("Count =", num.count(digit))
```

#Q23.

```
import math
a, b = map(int, input("Enter two numbers
:").split())
print("HCF =", math.gcd(a, b))
```

#Q24.

```
import math
a, b = map(int, input("Enter two numbers: ")
).split())
print("LCM =", abs(a*b) // math.gcd(a, b))
```

#Q25.

```
num = int(input("Enter a number: "))
s = sum(i for i in range(1, num) if num % i ==
0)
print("Perfect" if s == num else "Not Perfect")
```

#Q26.

```
start, end = map(int, input("Enter range: ")
    ).split())
for num in range(start, end+1):
    if num > 1 and all(num % i != 0 for i in
        range(2, int(num**0.5)+1)):
        print(num, end=" ")
```

#Q27.

```
import math
num = int(input("Enter a number: "))
s = sum(math.factorial(int(d)) for d in str(num)
    ))
print("Strong Number" if s == num else "Not
    Strong")
```

#Q28.

```
s = input("Enter a string: ")
print("Palindrome" if s == s[::-1] else "Not
    Palindrome")
```



#Q29.

```
s = input("Enter a string: ")
vowels = consonants = digits = specials = 0
for ch in s:
    if ch.isdigit():
        digits += 1
    elif ch.isalpha():
        if ch.lower() in "aeiou":
            vowels += 1
        else:
            consonants += 1
    else:
        specials += 1
print("Vowels:", vowels, "Consonants:",
      consonants, "Digits:",
digits, "Specials:", specials)
```

#Q30.

```
n = int(input("Enter rows: "))
for i in range(1, n+1):
    print("* " * i)
```

#Q3.

```
a=int(input("enter your age:"))
if a>=18:
    print("you can eligible to vote")
else:
    print("you can not eligible to vote")
```

```
enter your age:32
you can eligible to vote
```

#Q4.

```
a=int(input("enter a first number"))
b=int(input("enter a second number"))
if a>b:
    print(a,"is greater than",b)
else:
    print(b,"is greater then",a)
```

```
enter a first number20
enter a second number18
20 is greater than 18
```



#05:

```
a=int(input("enter a number:"))
b=int(input("enter a number:"))
c=int(input("enter a number:"))
if a>b and a>c:
    print(a,"is greater than",b,"and",c)
elif b>a and b>c:
    print(b,"is greater than",a,"and",c)
elif c>a and c>b:
    print(c,"is greater than",a,"and",b)
elif a==b>c:
    print(a,"is equal than",b,"and",c)
elif b==a>c:
    print(b,"is equal than",a,"and",c)
elif c==b>a:
    print(c,"is equal than",b,"and",a)
elif a==b==c:
    print(a,"is equal than",b,"and",c)

else:
    print("must enter a interger no")
```

→ enter a number:50  
enter a number:56  
enter a number:85

```
#Q6.  
a=["a","e","i","o","u","A","E","I","O","U"]  
b= input("enter a alphabet:")  
if b in a :  
    print("it's a vowel")  
elif a not in b:  
    print("it a constant")  
else:  
    print("enter only string not any no.or special character")
```

```
enter a alphabet:i  
it's a vowel
```

```
#Q7.  
year=int(input("enter the year:"))  
if (year%4==0):  
    print(year,"is a leap year")  
else:  
    print(year,"is not a leap year")
```

```
enter the year:2000  
2000 is a leap year
```



#Q8.

```
num=int(input("enter the number:"))  
if(num%5==0 and num%11==0):  
    print(num,"is divisible by 5 and 11")  
else:  
    print(num,"is not divisble by 5 and 11")
```

```
enter the number:550  
550 is divisible by 5 and 11
```





#Q1.

```
a = int(input("enter a number:"))
```

```
if a>0:
```

```
    print("positive number")
```

```
elif a<0:
```

```
    print("negative number")
```

```
else:
```

```
    print("zero")
```



```
enter a number:50  
positive number
```