

## Easy Level Questions

```
In [10]: # Take the two number as input and print their sum
x = int(input(" Enter First number :"))
b = int(input("Enter Second Number :"))
sum = x+b
print("Sum of Two Number is : ",sum)
```

Sum of Two Number is : 8

```
In [28]: # Write a program to check if a number is even or odd
x = int(input(" Enter First number :"))
if x%2 == 0 :
    print("This is a Even number")
else :
    print("This is a odd Number")
```

This is a odd Number

```
In [32]: # 2. Check if a person is eligible to vote (age 18 or above)
age = int(input("Enter Your Age :"))
if age > 18 :
    print("You are eligible for Voting")
else :
    print("You are not eligible for voting")
```

You are eligible for Voting

```
In [44]: # 3. Determine if a given year is a Leap year or not
year = int(input(" Enter the year : "))
if (year % 4 == 0 and year%100 !=0 ) or (year%100 ==0) :
    print("This is a leap year")
else :
    print("This is not a leap year")
```

This is not a leap year

```
In [56]: # 4. Check if a number is positive, negative, or zero
number = int(input("Enter a number :"))
if number == 0 :
    print("Given Number is zero ")
elif number > 0 :
    print("Given Number is Positive Number")
else :
    print("Given Numbr is Negative ")
```

Given Number is zero

```
In [60]: # 5. Write a program to find the greatest of two numbers
number1 = int(input("Enter First number :"))
number2 = int(input("Enter Second number :"))
if number1 > number2 :
    print("First Number is greater ")
```

```
else :
    print("Second Number is greater ")
```

Second Number is greater

```
In [78]: # 6. Determine if a number is a multiple of 5
number3 = int(input("Enter Number :"))
if number3%5 ==0 :
    print("This is a multiple of 5 ::",number3)
else :
    print("This is not a multiple of 5 ::",number3)
```

This is not a multiple of 5 :: 88

```
In [106... # 7. Check if a character is a vowel or consonant
char = input("Enter the character :").lower()
if char in 'aeiou' :
    print("this is a vowel")
else :
    print("This is a constant ")
```

this is a vowel

```
In [110... # 8. Determine if a person is eligible for a senior citizen discount (age 60+)
age1 = int(input("Enter your Age :"))
if age1 >= 60 :
    print("eligible for a senior citizen discount")
else :
    print("Not eligible for a senior citizen discount")
```

eligible for a senior citizen discount

```
In [140... #9. Check if a number is a single-digit number
number4 = int(input("Enter a Number :"))
if number4 <= 9 :
    print("This is a single digit")
else :
    print("This is not a single digit")
```

This is a single digit

```
In [142... #10. Print "Good Morning" if the time is before 12 PM, otherwise print "Good Afternoon"
time = int(input('Enter the Time'))
if time < 12 :
    print(" Good Morning Dude")
else :
    print(" Good Afternoon Dude ")
```

Good Morning Dude

```
In [150... # 24 Hours Format
hour = int(input("Enter hour (24-hour format): "))
if hour < 12:
    print("Good Morning")
else:
    print("Good Afternoon")
```

Good Morning

```
In [154... # 11 Check if a string is empty or not
string = input("Enter a string :")
if not string :
    print("This is a empty string ")
else :
    print("There is not empty string ")
```

This is a empty string

```
In [162... # 12. Verify if a number is a perfect square
import math
number5 = int(input("Enter a Number"))
sqrt_root = math.sqrt(number5)
if sqrt_root.is_integer():
    print(f"{number5} is a perfect square.")
else:
    print(f"{number5} is not a perfect square.")
```

25 is a perfect square.

```
In [197... ## 13. Determine if a number is between 1 and 100
number6 = int(input("Enter a number between 1 and 100 :"))
if 1 <= number6 <= 100 :
    print(f"{number6} :Within the range")
else :
    print(f"{number6} :out of range ")
```

900 :out of range

```
In [223... # 14. Print "Weekend" if the day is Saturday or Sunday; otherwise, print "Weekday"
day = input("Enter a day :").lower()
if day in ["saturday", "sunday"] :
    print("Weekends")
else :
    print("Weekdays")
```

Weekends

```
In [239... # 15. Find if a given number is exactly divisible by both 3 and 7
number7 = int(input("Enter a number :"))
if number7%3 == 0 and number7%7 == 0 :
    print("number is divisible by both 3 and 7")
else :
    print("number is not divisible by both 3 and 7")
```

number is divisible by both 3 and 7

```
In [247... # 16. Check if the sum of two numbers is greater than 100
a = int(input("Enter the First Number :"))
b = int(input("Enter the First Number :"))
sum = int(a+b)
if sum > 100 :
    print("Sum is greater than 100 ")
else :
    print("Sum is less than 100")
```

Sum is greater than 100

```
In [255... # Write a program to find the minimum of two numbers
a = int(input("Enter the First Number :"))
b = int(input("Enter the First Number :"))
if a < b :
    print("Minimum",a)
else :
    print("Minimum:",b)
```

Minimum 0

```
In [261... # Check if a number is divisible by 2 but not by 3
number8 = int(input("Enter the Number :"))
if number8%2 == 0 and number8%3 != 0:
    print(' divisible by 2 but not by 3 ')
else :
    print("Not Eligible criteria ")
```

Not Eligible criteria

```
In [265... # Determine if a given alphabet is Lowercas
char = input("Enter a character")
if char.islower():
    print("Lower")
else :
    print("Not Lower")
```

Not Lower

```
In [271... # Determine if a given alphabet is Uppercase
char = input("Enter a character")
if char.isupper():
    print("Upper")
else :
    print("Not Upper")
```

Upper

```
In [281... # 20. Check if a triangle is valid given three side lengths (sum of any two sides m
a = int(input("Enter first side: "))
b = int(input("Enter second side: "))
c = int(input("Enter third side: "))
if a + b > c and a + c > b and b + c > a:
    print("Valid Triangle")
else:
    print("Not Valid Triangle")
```

Valid Triangle

## Medium Level Questions

```
In [328... #. Find the Largest of three numbers.
numbiera= int(input("Enter First Number "))
numberb = int(input("Enter Second Number "))
numberc = int(input("Enter Thir Number "))
if numbiera >= b and numbiera >= c :
```

```

    print("Largest is ", numbera)
elif numberb >= a and b >= c :
    print("Largest number is ", numberb)
else :
    print("Largest is ", numberc)

```

Largest is 99

```

In [353... num = int(input("Enter a number: "))
if num > 1:
    for i in range(2, int(num**0.5) + 1):
        if num % i == 0:
            print("Not a prime number")
            break
        else: # This else belongs to the for loop, not the if statement
            print("Prime number")
else:
    print("Not a prime number")

```

Not a prime number

```

In [373... # Check if a person is eligible for a driving license (age 18+, passed the driving
age = int(input("Enter Your Age "))
passed_test = input("Did you pass the driving test?(yes/no:").lower()
if age >= 18 and passed_test == "yes":
    print("You are eligible for a driving license ")
else :
    print("You are not eligible for a driving license ")

```

You are eligible for a driving license

```

In [381... # Determine if a triangle is equilateral, isosceles, or scalen
#equilateral = All sides are equal
#isosceles = two sides are equal
#scalen = no side are equal
side = int(input("Enter the First Side "))
side2 = int(input("Enter the Second Side "))
side3 = int(input("Enter the Third Side "))
if side==side2==side3 :
    print("This is quilateral triangle ")
elif side == side2 or side2==side3 or side==side3 :
    print("Isosceles Triangle")
else :
    print("Scalen")

```

Scalen

```

In [385... # . Determine if a student passes or fails based on a passing mark of 40
marks = int(input("Enter the Marks "))
if marks >= 40 :
    print(" Pass")
else :
    print("Fail")

```

Fail

```

In [395... # . Check if a number is a palindrome (same forward and backward).
number = input("Enter the Number ")

```

```

if number == number[::-1] :
    print("This is palidrome Umber ")
else :
    print("This is not a palidrome number ")

```

This is palidrome Umber

In [424... *##### . Calculate the electricity bill based on consumption: ₹5 per unit for the fi*  
*# ₹15 per unit for anything above 300 units.*

```

units = int(input("Enter electricity units consumed: "))
if units <= 100:
    bill = units * 5
elif units <= 300:
    bill = (100 * 5) + (units - 100) * 10
else:
    bill = (100 * 5) + (200 * 10) + (units - 300) * 15
print("Total Bill: ₹", bill)

```

Total Bill: ₹ 65500

In [456... *# Find the grade of a student based on marks (90+ A, 80-89 B, etc.).*

```

marks = int(input("enter the marks:"))
if marks >= 90 :
    print("Garde is : A")
elif marks >= 80 :
    print("Garde is : B")
elif marks >= 70 :
    print("Garde is : C")
elif marks >= 60 :
    print("Garde is : D")
elif marks >= 50 :
    print("Garde is : E")
else :
    print("Marks is very Poor . Improve yourself ")

```

Marks is very Poor . Improve yourself

In [458... *# Determine if a given date is valid (considering month length and Leap year for F*

```

import calendar
day = int(input("Enter day: "))
month = int(input("Enter month: "))
year = int(input("Enter year: "))
if 1 <= month <= 12 and 1 <= day <= calendar.monthrange(year, month)[1]:
    print("Valid date")
else:
    print("Invalid date")

```

Valid date

In [470... *# Check if a given time is AM or PM*

```

time = int(input("Enter the time in 24 hrs format"))
if time <= 12:
    print("AM")
else :
    print("PM")

```

AM

```
In [484...] # .. Check if a number is an Armstrong number (sum of its digits raised to the power of the number)
num = input("Enter a number: ")
power = len(num)
if sum(int(digit) ** power for digit in num) == int(num):
    print("Armstrong Number")
else:
    print("Not an Armstrong Number")
```

```
-----
TypeError                                Traceback (most recent call last)
Cell In[484], line 4
      2 num = input("Enter a number: ")
      3 power = len(num)
----> 4 if sum(int(digit) ** power for digit in num) == int(num):
      5     print("Armstrong Number")
      6 else:

TypeError: 'int' object is not callable
```

```
In [ ]: # Determine the type of quadrilateral based on given angles and sides
```

```
In [490...] a = int(input("Enter the First Side :"))
b = int(input("Enter the Second Side :"))
c = int(input("Enter the Third Side :"))
d = int(input("Enter the Fourth Side :"))
if a==b==c==d :
    print("Square")
elif a==c and b==d :
    print("Rectangle")
else :
    print("Other Quadrilaterals")
```

Rectangle

```
In [496...] # . Implement a basic calculator that takes two numbers and an operation (+, -, *, /)
a1 = float(input("Enter the First Number :"))
b2 = float(input("Enter the Second Second :"))
op = input("Enter operation (+,-,*,/)")
if op == '+' :
    print("Sum of two number is :",a1+b2)
elif op == '-':
    print("Differnce of two number is ;",a1-b2)
elif op == '*' :
    print("Multiplication of two number is :",a1*b2)
elif op == '/' :
    print("Divisions of two number is :",a1/b2)
else :
    print("Other operation are not allowed")
```

Sum of two number is : 4.0

```
In [500...] # Check if a bank account balance is sufficient for withdrawal
balance = float(input("Enter Account Balance "))
withdrawl = float(input("Enter Withdrawl amount"))
```

```
if balance >= withdrawl :  
    print("Withdrawl Sucessfull")  
else :  
    print("Insufficient Funds ")
```

Insufficient Funds

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