

**Task1:**

# 1. Calculate the sum, difference, product, and quotient of two numbers.

```
a = int(input("Enter first number: "))

b = int(input("Enter second number: "))

print("Sum =", a + b)

print("Difference =", a - b)

print("Product =", a * b)

print("Quotient =", a / b)
```

# 2. Find the remainder of a division.

```
a = int(input("Enter dividend: "))

b = int(input("Enter divisor: "))

print("Remainder =", a % b)
```

# 3. Calculate simple interest.

```
p = float(input("Enter principal: "))

r = float(input("Enter rate of interest: "))

t = float(input("Enter time: "))

si = (p * r * t) / 100

print("Simple Interest =", si)
```

# 4. Convert minutes to hours and minutes.

```
minutes = int(input("Enter minutes: "))

hours = minutes // 60

remaining_minutes = minutes % 60

print("Hours =", hours)

print("Minutes =", remaining_minutes)
```

# 5. Find the square and cube of a number.

```
n = int(input("Enter a number: "))

print("Square =", n ** 2)

print("Cube =", n ** 3)
```

```
# 6. Check if a student has passed (marks ≥ 40).
```

```
marks = int(input("Enter marks: "))
```

```
if marks >= 40:
```

```
    print("Student has passed")
```

```
else:
```

```
    print("Student has failed")
```

```
# 7. Compare two ages and print who is older.
```

```
age1 = int(input("Enter first age: "))
```

```
age2 = int(input("Enter second age: "))
```

```
if age1 > age2:
```

```
    print("First person is older")
```

```
elif age2 > age1:
```

```
    print("Second person is older")
```

```
else:
```

```
    print("Both are of the same age")
```

```
# 8. Check if a number is greater than or equal to 100.
```

```
num = int(input("Enter a number: "))
```

```
if num >= 100:
```

```
    print("Number is greater than or equal to 100")
```

```
else:
```

```
    print("Number is less than 100")
```

```
# 9. Check if a number is positive OR zero.
```

```
num = int(input("Enter a number: "))
```

```
if num > 0 or num == 0:
```

```
    print("Number is positive or zero")
```

```
else:
```

```
    print("Number is negative")
```

```
# 10.Check if a number is NOT negative.
```

```
num = int(input("Enter a number: "))
```

```
if not(num < 0):
    print("Number is not negative")
else:
    print("Number is negative")
```

### Output:

```
● PS D:\Internship\Day7> python task1.py
Enter first number: 10
Enter second number: 2
Sum = 12
Difference = 8
Product = 20
Quotient = 5.0
Enter dividend: 7
Enter divisor: 2
Remainder = 1
Enter principal: 1000
Enter rate of interest: 10
Enter time: 60
Simple Interest = 6000.0
Enter minutes: 180
Hours = 3
Minutes = 0
Enter a number: 4
Square = 16
Cube = 64
Enter marks: 60
Student has passed
Enter first age: 21
Enter second age: 18
First person is older
Enter a number: 120
Number is greater than or equal to 100
Enter a number: 12
Number is positive or zero
Enter a number: 2
Number is not negative
```

**Task2:**

# 1. Find the smallest of two numbers.

```
a = int(input("Enter first number: "))

b = int(input("Enter second number: "))

if a < b:

    print("Smallest number is", a)

else:

    print("Smallest number is", b)
```

# 2. Check if a person is eligible to vote.

```
age = int(input("Enter age: "))

if age >= 18:

    print("Eligible to vote")

else:

    print("Not eligible to vote")
```

# 3. Check if a number is even or odd.

```
num = int(input("Enter a number: "))

if num % 2 == 0:

    print("Even number")

else:

    print("Odd number")
```

# 4. Grade a student based on marks.

```
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")
```

```
# 1. Print numbers from 1 to 10.
```

```
for i in range(1, 11):
```

```
    print(i)
```

```
# 2. Print even numbers from 1 to 50.
```

```
for i in range(1, 51):
```

```
    if i % 2 == 0:
```

```
        print(i)
```

```
# 3. Print multiplication table of a number.
```

```
num = int(input("Enter a number: "))
```

```
for i in range(1, 11):
```

```
    print(num, "x", i, "=", num * i)
```

```
# 4. Print characters of a string one by one.
```

```
text = input("Enter a string: ")
```

```
for ch in text:
```

```
    print(ch)
```

```
# 5. Calculate the sum of first N numbers.
```

```
n = int(input("Enter N: "))
```

```
sum = 0
```

```
for i in range(1, n + 1):
```

```
    sum = sum + i
```

```
print("Sum =", sum)
```

```
# 6. Count vowels in a string.
```

```
text = input("Enter a string: ")
```

```
count = 0
```

```
for ch in text:
```

```
    if ch in "aeiouAEIOU":
```

```
        count += 1
```

```
print("Number of vowels =", count)
```

Output:

```
● PS D:\Internship\Day7> python task2.py
Enter first number: 50
Enter second number: 75
Smallest number is 50
Enter age: 21
Eligible to vote
Enter a number: 26
Even number
Enter marks: 85
Grade B
1
2
3
4
5
6
7
8
9
10
```

```
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
Enter a number: 5
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

```
Enter a string: Hello World
```

```
H  
e  
l  
l  
o  
  
W  
o  
r  
l  
d
```

```
Enter N: 5
```

```
Sum = 15
```

```
Enter a string: Hello World
```

```
Number of vowels = 3
```

### Task3:

```
# 1. Print numbers from 10 to 1.
```

```
i = 10
```

```
while i >= 1:
```

```
    print(i)
```

```
    i = i - 1
```

```
# 2. Sum of digits of a number.
```

```
num = int(input("Enter a number: "))
```

```
sum = 0
```

```
while num > 0:
```

```
    digit = num % 10
```

```
    sum = sum + digit
```

```
    num = num // 10
```

```
print("Sum of digits =", sum)
```

```
# 3. Count number of digits.
```

```
num = int(input("Enter a number: "))
```

```
count = 0
```

```
while num > 0:
```

```
    count = count + 1
```

```
    num = num // 10
```

```
print("Number of digits =", count)
```

Output:

```
● PS D:\Internship\Day7> python task3.py
10
9
8
7
6
5
4
3
2
1
Enter a number: 123
Sum of digits = 6
Enter a number: 4567
Number of digits = 4
```