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GitHub Link: <https://github.com/Beshair-Khan/Python-Lab>

Lab 08

Task 1: Make a calculator using the function the code should use only 2 operands(+ and -) for division and multiplication as well.

```
task 7.py •
task 7.py > calculator
1  def add(a, b):
2      return a + b
3  def subtract(a, b):
4      return a - b
5  def multiply(a, b):
6      result = 0
7      positive = True
8      if b < 0:
9          b = -b
10         positive = False
11     for _ in range(b):
12         result = add(result, a)
13     if not positive:
14         result = -result
15     return result
16 def divide(a, b):
17     if b == 0:
18         return "Error: Cannot divide by zero"
19     count = 0
20     positive = (a >= 0 and b > 0) or (a < 0 and b < 0)
21     a = abs(a)
22     b = abs(b)
23     while a >= b:
24         a = subtract(a, b)
25         count = add(count, 1)
26     return count if positive else -count
27 def calculator():
28     a = int(input("Enter first number: "))
29     b = int(input("Enter second number: "))
30     operation = input("Choose operation (+, -, *, /): ")
31     if operation == "+":
```

```

32         print("Result:", add(a, b))
33     elif operation == "-":
34         print("Result:", subtract(a, b))
35     elif operation == "*":
36         print("Result:", multiply(a, b))
37     elif operation == "/":
38         print("Result:", divide(a, b))
39     else:
40         print("Invalid operation.")
41 calculator()

```

Output

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS D:\Uni programs> & C:/Users/TFS/AppData/Local/Programs/Python/Python310/python.exe "d:/Uni programs/task 7.py"
Enter first number: 44
Enter second number: 33
Choose operation (+, -, *, /): +
Result: 77
PS D:\Uni programs> & C:/Users/TFS/AppData/Local/Programs/Python/Python310/python.exe "d:/Uni programs/task 7.py"
Enter first number: 55
Enter second number: 789
Choose operation (+, -, *, /): *
Result: 43395
PS D:\Uni programs> 

```

Task 2: Write a functions that ask the user the shape and make the star shaped.
(Like it asks the shape(triangle or Rectangle) and make that shape.

```

task 7.py > ...
1 def draw_shape():
2     shape = input("Enter the shape (triangle or rectangle): ").lower()
3
4     if shape == "triangle":
5         rows = int(input("Enter number of rows for triangle: "))
6         for i in range(1, rows + 1):
7             print("*" * i)
8
9     elif shape == "rectangle":
10        rows = int(input("Enter number of rows: "))
11        cols = int(input("Enter number of columns: "))
12        for i in range(rows):
13            print("*" * cols)
14
15    else:
16        print("Invalid shape. Please enter 'triangle' or 'rectangle'.")
17 draw_shape()

```

Output

```

Enter the shape (triangle or rectangle): rectangle
Enter number of rows: 6
Enter number of columns: 6
*****
*****
*****
*****
*****
*****
PS D:\Uni programs> 

```