

Started on	Wednesday, 5 June 2024, 3:47 PM
State	Finished
Completed on	Thursday, 6 June 2024, 11:52 PM
Time taken	1 day 8 hours
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

Develop a Python program that safely performs division between two numbers provided by the user. Handle exceptions like division by zero and non-numeric inputs.

Input Format: Two lines of input, each containing a number.

Output Format: Print the result of the division or an error message if an exception occurs.

For example:

Input	Result
10 2	5.0
10 0	Error: Cannot divide or modulo by zero.
ten 5	Error: Non-numeric input provided.

Answer: (penalty regime: 0 %)

```

1  def div(c,d):
2      try:
3          c=float(c)
4          d=float(d)
5          print(c/d)
6      except ZeroDivisionError:
7          print("Error: Cannot divide or modulo by zero.")
8      except ValueError:
9          print("Error: Non-numeric input provided.")
10 a=input()
11 b=input()
12 div(a,b)
13

```

	Input	Expected	Got	
✓	10 2	5.0	5.0	✓
✓	10 0	Error: Cannot divide or modulo by zero.	Error: Cannot divide or modulo by zero.	✓
✓	ten 5	Error: Non-numeric input provided.	Error: Non-numeric input provided.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Problem Description:

Develop a Python program that safely calculates the square root of a number provided by the user. Handle exceptions for negative inputs and non-numeric inputs.

Input Format:

User inputs a number.

Output Format:

Print the square root of the number or an error message if an exception occurs.

For example:

Input	Result
16	The square root of 16.0 is 4.00
-4	Error: Cannot calculate the square root of a negative number.
rec	Error: could not convert string to float

Answer: (penalty regime: 0 %)

```
1 import math
2 try:
3     a=float(input())
4 except:
5     print("Error: could not convert string to float")
6 else:
7     if a>=0:
8         b=math.sqrt(a)
9         print("The square root of",a, "is %.2f"%(b))
10 else:
11     print("Error: Cannot calculate the square root of a negative number.")
12
```

	Input	Expected	Got	
✓	16	The square root of 16.0 is 4.00	The square root of 16.0 is 4.00	✓
✓	0	The square root of 0.0 is 0.00	The square root of 0.0 is 0.00	✓
✓	-4	Error: Cannot calculate the square root of a negative number.	Error: Cannot calculate the square root of a negative number.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Write a Python program that performs division and modulo operations on two numbers provided by the user. Handle division by zero and non-numeric inputs.

Input Format:

Two lines of input, each containing a number.

Output Format:

Print the result of division and modulo operation, or an error message if an exception occurs.

For example:

Input	Result
10 2	Division result: 5.0 Modulo result: 0
7 3	Division result: 2.3333333333333335 Modulo result: 1
8 0	Error: Cannot divide or modulo by zero.

Answer: (penalty regime: 0 %)

```

1 try:
2     n1=int(input())
3     n2=int(input())
4     div=n1/n2
5     mod=n1%n2
6     print("Division result:",div)
7     print("Modulo result:",mod)
8 except ZeroDivisionError:
9     print("Error: Cannot divide or modulo by zero.")
10 except ValueError:
11     print("Error: Non-numeric input provided.")

```

	Input	Expected	Got	
✓	10 2	Division result: 5.0 Modulo result: 0	Division result: 5.0 Modulo result: 0	✓
✓	7 3	Division result: 2.3333333333333335 Modulo result: 1	Division result: 2.3333333333333335 Modulo result: 1	✓
✓	8 0	Error: Cannot divide or modulo by zero.	Error: Cannot divide or modulo by zero.	✓
✓	abc 5	Error: Non-numeric input provided.	Error: Non-numeric input provided.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

Write a Python program that asks the user for their age and prints a message based on the age. Ensure that the program handles cases where the input is not a valid integer.

Input Format: A single line input representing the user's age.

Output Format: Print a message based on the age or an error if the input is invalid.

For example:

Input	Result
twenty	Error: Please enter a valid age.
25	You are 25 years old.
-1	Error: Please enter a valid age.

Answer: (penalty regime: 0 %)

```

1 try:
2     n=int(input())
3
4 except:
5     print("Error: Please enter a valid age.")
6 else:
7     if(n>=0):
8         print("You are %d years old."%n)
9     else:
10        print("Error: Please enter a valid age.")

```

	Input	Expected	Got	
✓	twenty	Error: Please enter a valid age.	Error: Please enter a valid age.	✓
✓	25	You are 25 years old.	You are 25 years old.	✓
✓	-1	Error: Please enter a valid age.	Error: Please enter a valid age.	✓
✓	150	You are 150 years old.	You are 150 years old.	✓
✓		Error: Please enter a valid age.	Error: Please enter a valid age.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Problem Description:

Write a Python script that asks the user to enter a number within a specified range (e.g., 1 to 100). Handle exceptions for invalid inputs and out-of-range numbers.

Input Format:

User inputs a number.

Output Format:

Confirm the input or print an error message if it's invalid or out of range.

For example:

Input	Result
1	Valid input.
101	Error: Number out of allowed range
rec	Error: invalid literal for int()

Answer: (penalty regime: 0 %)

```
1 try:
2     n=int(input())
3     if(n>0 and n<=100):
4         print("Valid input.")
5     else:
6         print("Error: Number out of allowed range")
7 except ValueError:
8     print("Error: invalid literal for int()")
```

	Input	Expected	Got	
✓	1	Valid input.	Valid input.	✓
✓	100	Valid input.	Valid input.	✓
✓	101	Error: Number out of allowed range	Error: Number out of allowed range	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

