[Dashboard](http://118.185.187.137/moodle/my/) / [My courses](http://118.185.187.137/moodle/my/courses.php) / [CS23221-PPL-2023](http://118.185.187.137/moodle/course/view.php?id=148) / [Exceptions](http://118.185.187.137/moodle/course/view.php?id=148&section-11) / [Week11\_Coding](http://118.185.187.137/moodle/mod/quiz/view.php?id=1086)

**Started on** Sunday, 2 June 2024, 9:38 AM

**State** Finished

**Completed on** Friday, 7 June 2024, 9:16 PM

**Time taken** 5 days 11 hours

**Marks** 5.00/5.00

**Grade 50.00** out of 50.00 (**100**%)

Problem Description:

Question **1**

Correct

Mark 1.00 out of 1.00

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **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.

Problem Description:

Question **2**

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** |
| 25 | You are 25 years old. |
| rec | Error: Please enter a valid age. |
| -5 | Error: Please enter a valid age. |

**Answer:** (penalty regime: 0 %)

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Input** | **Expected** | **Got** |  |
|  | 25 | You are 25 years old. | You are 25 years old. |  |
|  | rec | Error: Please enter a valid age. | Error: Please enter a valid age. |  |
|  | !@# | Error: Please enter a valid age. | Error: Please enter a valid age. |  |

Passed all tests! 

**Correct**

Marks for this submission: 1.00/1.00.

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 ▼  2  3 ▼  4  5 ▼  6  7 ▼  8 | try:  x=int(input()) if x>=0:  print("You are",x,"years old.") else:  print("Error: Please enter a valid age.")  except:  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.

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.

Question **4**

Correct

Mark 1.00 out of 1.00

**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 ▼  2  3  4  5 ▼  6  7 ▼  8 | try:  a=input() b=input()  print(float(a)/float(b)) except ZeroDivisionError:  print("Error: Cannot divide or modulo by zero.") except :  print("Error: Non-numeric input provided.") |
|  | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **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.

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.

Question **5**

Correct

Mark 1.00 out of 1.00

# 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 ▼  2  3  4  5  6 ▼  7  8 ▼  9  10 ▼  11 | try:  a=input() b=input()  print("Division result:",float(a)/float(b)) print("Modulo result:",int(a)%int(b))  except ZeroDivisionError:  print("Error: Cannot divide or modulo by zero.") except:  x=isinstance(a,str) if x==True:  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.

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[Week12\_MCQ ►](http://118.185.187.137/moodle/mod/quiz/view.php?id=1088&forceview=1)