Display welcome message

Prompt user to select a difficulty

Endless Loop

If difficulty is in [E, M, H] // not case-sensitive

Break out of loop

Print "Invalid choice" message

Prompt for difficulty

Print message confirming the selected difficulty

SET questions to None

SET quantity to None

SET minimum to None

SET maximum to None

IF difficulty is "E"

SET questions to 2

SET quantity to 3

SET minimum to 1

SET maximum to 5

ELSE IF difficulty is "M"

SET questions to 4

SET quantity to 5

SET minimum to 3

SET maximum to 12

ELSE

SET questions to 6

SET quantity to 8

SET minimum to 10

SET maximum to 25

SET score to 0

For each question

Print question the user is up to out of the total number of questions

IF the user is not up to the final question

Generate a list of "quantity" random numbers between "minimum" and "maximum"

//random\_list(quantity, minimum, maximum)

ELSE

Print "Challenge questions!" message

Generate a list of "quantity" random numbers between double the "minimum" and double the "maximum"

//random\_list(quantity, minimum \*2, maximum \*2)

Generate a random number between 1 and 4

//random.randint(1, 4)

IF number = 1

Print "What is the smallest number in this list?" and display list of numbers generated by "random\_list()"

Prompt for answer

//The "min()" function can be used to determine the correct answer

//Convert the user’s input to an integer so that you can properly compare it to the correct answer.

IF answer is correct

Print "Correct!" message

SET score to score + 1

ELSE

Print "Incorrec!t" and the correct answer

ELSE IF number = 2

Print "What is the biggest number in this list?" and display list of numbers generated by "random\_list()"

//The "max()" function can be used to determine the correct answer.

//Convert the user’s input to an integer so that you can properly compare it to the correct answer.

IF answer is correct

Print "Correct!" message

SET score to score + 1

ELSE

Print "Incorrec!t" and the correct answer

ELSE IF number = 3

Print "What is the sum of the numbers in this list?" and display list of numbers generated by "random\_list()"

//The "sum()" function can be used to determine the correct answer.

//Convert the user’s input to an integer so that you can properly compare it to the correct answer.

IF answer is correct

Print "Correct!" message

SET score to score + 1

ELSE

Print "Incorrec!t" and the correct answer

ELSE

Print "What is the average of the numbers in this list?", followed by list of numbers generated by "random\_list()" and "round UP to nearest integer" message

//The "sum()", "len()" and “math.ceil()” functions are likely to be useful.

//Convert the user’s input to an integer so that you can properly compare it to the correct answer.

IF answer is correct

Print "Correct!" message

SET score to score + 1

ELSE

Print "Incorrec!t" and the correct answer

Print "Test complete!" message, followed by the "score" out of questions and the percentage that represent the score

//Round the percentage to 1 decimal place.

IF score = questions

Print "Perfect score, well done!" message

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random\_list()

//The definition of the function should be at the start of the program,

Define "random\_list" function (receives "quaniy", "minimum" and "maximum")

//There are various ways to achieve this, but most approaches are is

//likely to involve a list, a for loop, and the "random.randint()" function

Set "result" to an empty list

Repeat 5 times

Generate a random number between "minimum" and "maximum"

Add number to "result"

Return "result"