01.1 - Vineyard

A vineyard owner is planting several new rows of grapevines, and needs to know how many grapevines to plant in each row. She has determined that after measuring the length of a future row, she can use the following formula to calculate the number of vines that will fit in the row, along with the trellis end-post assemblies that will need to be constructed at each end of the row:

$$V = (R - 2E)/S.$$

In this formula, V is the number of grapevines that will fit in the row, R is the length of the row, in meters, E is the amount of space, in meters, used by an end-post assembly, and S is the space between vines, in meters.

Write a program that makes the calculation for the vineyard owner. The program should ask the user to input the following:

- the amount of space between the vines, in meters

- the amount of space used by an end-post assembly, in meters

- the length of the row, in meters

Once the input data has been entered, the program should calculate and display the number of grapevines that will fit in the row. Note that you cannot plant a partial vine in a row so the output must be formatted as an integer (e.g. if there are 33.5 vines that will fit in the row, your program's output should be 33).

Test your program with the following data:

Input			Output
S	E	R	V
2	2.5	55	25
4	1.5	200	49
5	3	15	1

Finally, format your program to match the sample below. Your output should exactly match the sample output, character for character, including all white space and punctuation. User input in the sample has been highlighted in Pappy's Purple to distinguish it from the program's output, but your user input does not need to be colored. Save your finished program as vineyard_login.py, where login is your Purdue login. Then submit it along with a screenshot showing a run of **all 3** test cases.

Terminal

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$ python vineyard_login.py
Enter each of the following quantities in meters.
  How much space should be between the vines? 4
  How wide is the end-post assembly? 1.5
  How long is this row? 200

This row has enough space for 49 vine(s).
```