

BHCSI Python Optional program: *Road Trip*

Given the length of a road trip, the average driving speed (while driving), and the number of minutes resting during the trip, write a program to calculate the actual average speed for the whole trip.

Input Specification

1. The length of the roadtrip will be a positive integer.
2. The average speed while driving will be a positive real number.
3. The amount of rest time in minutes during the roadtrip will be a non-negative integer.

Output Specification

Output the overall roadtrip average speed in miles per hour. Your output should follow the format below, where X represents the average speed. (X will be a float.)

The actual average speed of your roadtrip was X mph.

Output Samples

Here are three sample outputs of running the program. Note that this set of tests is NOT a comprehensive test. You should test your program with different data than is shown here based on the specifications given. The user input is given in *italics* while the program output is in bold.

Output Sample #1

Enter the length of your roadtrip in miles.

500

Enter your average driving speed during the roadtrip in miles per hour.

50

Enter the number of rest minutes during your roadtrip.

150

The actual average speed of your roadtrip was 40.00 mph.

Output Sample #2

Enter the length of your roadtrip in miles.

470

Enter your average driving speed during the roadtrip in miles per hour.

58.75

Enter the number of rest minutes during your roadtrip.

120

The actual average speed of your roadtrip was 47.00 mph.

Output Sample #3

Enter the length of your roadtrip in miles.

330

Enter your average driving speed during the roadtrip in miles per hour.

72.65

Enter the number of rest minutes during your roadtrip.

35

The actual average speed of your roadtrip was 64.38 mph.