

CS 112 Assignment 6c

Submit your finished code to the Dropbox. You will need to pass off the assignments with the TA or tutor during their office hours (their information is in the CS 112 Course Information section of the Table of Contents), or the instructor in class. Follow the formatting guide which is also found in the CS 112 Course Information section.

Read the instructions carefully. Make sure your output matches the example run.

Objectives:

In this assignment you will practice the following:

- Make use of a Boolean value
- Write a function
- Pass arguments to the function

Program: function between()

Write a program that asks the user for three numbers. Use input validation to ensure the user entered three valid numbers.

Have your main() function call a second function that you write called between(), passing the three numbers as arguments. Your between() function will determine if the second argument lies between the first and third arguments. If it does, return the boolean value True to main(). Otherwise return the boolean value False. Print out the result in main().

After the program has finished, ask the user if they would like to play again. Use input validation to ensure the user answered with a 'Y' or 'N'. Keep the program running in an infinite loop until the user indicates they want to quit.

Key program requirements:

- Do input validation on all three numbers and the 'Y'/'N' play again question
- Write a function called between() which has three parameters
- Return the boolean value True or False to main()
- Print out the result in main()
- Use of global variables is NOT allowed
- The names of the three variables inside main() which are passed to between() as arguments MUST be different than the names of the three parameters inside of your between() function

Ponder – Discuss the following with your partner. Failure to do this activity and discuss these questions before you attempt to pass off your program will result in a failed pass off.

- The instructor has required the variables inside main() which are passed to between() as arguments MUST be different than the names of the three parameters inside of your between() function.
- Discuss whether this is a Python requirement or simply a requirement of your instructor.
- Discuss why you think the requirement was made.

Example Run

This program will ask the user for 3 numbers and determine if the second number lies between the first and the third.

Please enter the first number - the low number: low
Invalid response. Please enter a whole number.

Please enter the first number - the low number: 5
Please enter the second number - the test number: test
Invalid response. Please enter a whole number.

Please enter the second number - the test number: 20
Please enter the third number - the high number: high
Invalid response. Please enter a whole number.

Please enter the third number - the high number: 50

The statement '20 lies between 5 and 50' is True

Would you like to play again? (Y/N): yep
Invalid response. Please answer with a 'Y' or 'N'.
Would you like to play again? (Y/N): Y

This program will ask the user for 3 numbers and determine if the second number lies between the first and the third.

Please enter the first number - the low number: 100
Please enter the second number - the test number: 200
Please enter the third number - the high number: 5

The statement '200 lies between 100 and 5' is False

Would you like to play again? (Y/N): N
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