

CS 200 > Assignment 5

Problem:

Create a program that will take as input a positive integer value greater than zero (0), and then determine if it is a prime number. The program will continue to take input & display results until the user chooses to 'Q' (quit).

Note: Make sure your prompts & displayed outcomes will be to the screen and should be user friendly. Input is from the keyboard.

Assignment Specifications:

Create a flowchart to solve this problem (flowchart must be submitted prior to coding).

Then, using jGrasp:

Code the problem in Java using two different looping syntax (i.e. for, while, or do-while).

Submit your source code (.java file)

Submit your output –

Run for input: 2, 4, 7, 9, 11, 13, 50, 562, 31, 16, 34, 29, 79, 17, 169
(saved in a notepad .txt file)

Turn in your assignment by the end of class tonight for full credit.
(see syllabus for assignment grading details)

Bonus: You may choose to do one or both extra credit options, but they must all be in the same .java file.

+1 point extra credit: check if the sum of all the inputs, once the user chooses to quit, is prime.

+2 points extra credit: validate input to be greater than zero (0), and then continue to prompt for a positive value up to three (3) times before ending program.

Run for input: -1, -15, 0, -7

and

-1, 0, 23, 42

Hint: Recall, an integer 'n' greater than 1 is prime if its only factors are 1 and 'n.'