CS 1050, Mr. Kramer Programming Assignment #5 # of pts: 40

Purpose Calculate savings using methods. This assignment builds on Assignment #2.

Due Date Per the Course at a Glance. Can be resubmitted.

Submissions In this order: printed copy of the source code with line numbers and a screen print showing the input and output. You will type in three numbers that are the gross pay, savings rate and investment rate, and show the output.

Note: if you are handing in a revision, hand in the original graded version(s) and put the newer revised version on top.

Java Topics methods, if statements, calculating with percentages.

References Textbook – use the index for relevant topics.

Specification

This program is a revision of Programming Assignment #2 to use methods. We will discuss Assignment #1, Interactive Average with Methods, as a model.

Write a Java program and methods in the order listed below.

Declare the variables for the gross pay, savings rate and IRA investment rate inside the main method and use them as appropriate to call the methods.

1. Call a void method that will output an explanation of what the program does. Include in the explanation that this program uses methods and include your name.

2. Prompt for the input of three real numbers – use type double – these will be the gross pay, savings rate and IRA investment rate. As you input the three numbers, ensure the numbers are greater than 0. Use one method to read and return a value so you will call this method three times. Note: use the style of Assignment #2 for input, not JOptionPane as in Assignment #3.

1. Calculate the savings amount and IRA investment amounts using one method for each calculation. The method will have two parameters, the gross pay and the respective percentage rate.
2. Use a void method to output, with appropriate messages and formatting:

The input data, the savings amount, IRA investment amount, and the total of the two latter numbers.

Note that this method requires five parameters with the total of the two numbers calculated in this output method. Output all decimal results to one or two places, depending on whether the result is a percentage or a dollar amount.

As before, include comments – programmer identification, assignment number, section, purpose, explanation for all variables, parameters, and methods, and the vocabulary word and quote. See documentation standards.