All of the test cases passed. This question is complete.

Submit Work Upload your source code files

Drag files (or click) to upload

lab02_ex1.cpp

Test Code

Number of attempts: 8

Exercise 1: ISBN Checksum

Assignment Specifications

A ten digit ISBN number uses a checksum as its last digit to verify the first nine digits are valid. Before 2007, all ISBN numbers were composed like this, such as: `0-20-508005-7` or `1-234-56789-X`. The first nine digits are assigned by a book's publisher and the last digit is calculated by "weighted sum" (described below). The X stands for the checksum value of 10, in order to represent ten as a single digit.

Your Assignment

You must write a program that calculates and outputs this checksum value given the first nine digits of the ISBN number, utilizing the checksum algorithm below.

ISBN Checksum Algorithm

To compute the *weighted sum* we start from the left-most digit:
Sum one times the first digit, plus two times the second digit, plus three times the third, etc. all the way to nine times the ninth digit.
Note: Just because we describe the calculation as "starting with the left-most digit" does NOT mean that that is the best order for the C++ algorithm! Plan carefully for the simplest way