ICS4U

Repetition Project 1

In the nine-digit Social Insurance Number (SIN) given to each person having a job or filing an income tax return in Canada, the ninth digit is a checked digit that is used to test the validity of the other digits in the SIN. The ninth digit is determined by the following procedure.

1. Double the 2nd, 4th, 6th, and 8th digits.
2. Add the digits of the numbers found in step a
3. Add the 1st, 3rd, 5th, and 7th digits.
4. Add the numbers found in step (b) and (c).
5. Subtract the units digit of the result of step (d) from 10 and note the units digit of the result. For the SIN to be valid, its ninth digit must have this value.

Write a program that repeatedly read nine-digit numbers and determines whether or not each number is a valid SIN. The program should stop when it reads the value 999999999.

Example: SIN 046 454 286 is a valid number

0 4 6 4 5 4 2 8 6

8 8 8 16 ->8 + 8 + 8 + 7 = 31

0 + 6 + 5 + 2 = 13

-----------

4**4**

Step e: 10 - **4** = 6

* Therefore, the SIN is valid.

Save file as loop\_yourName

You have 2 periods to complete this assignment