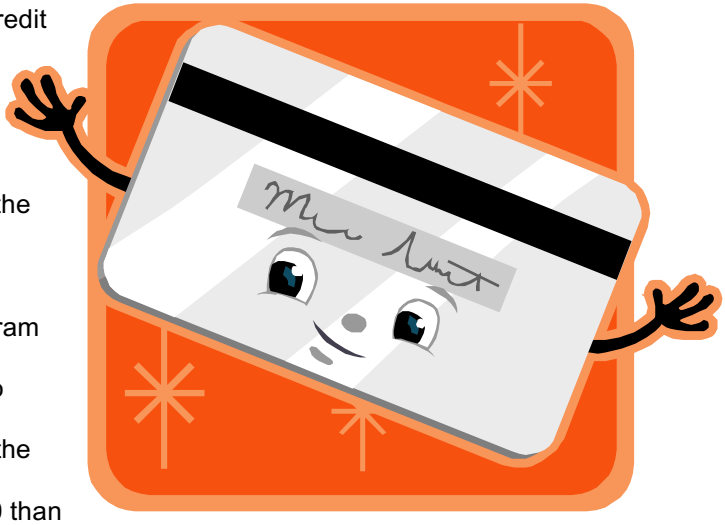
Program 72a
(identity theft)



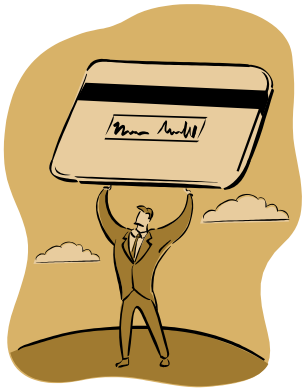
Program Description: Today, people often give credit card numbers over the phone and the Internet. To stop people from making up numbers at random, credit card issuers embed codes within the number that depend on the number itself. A simple approach is to add the individual digits of the number, then tack on a 0 or 1, as required, to make the number odd. Thus, 49921 would be legitimate, but 52771 wouldn't.

We will use a slightly different method. Write a program that computes an add-on letter for an 8 digit number. The letter should be arrived at by adding the four two digit numbers in the number, finding the integer remainder of a division by 26, and then determining the character in that position in the computer's collating (ASCII) sequence. For example if the remainder is 0 than the add on letter is A, if the remainder is 1 then the letter is a B and so on.

To find the ASCII number of a letter you can use your text and class notes to find an ASCII table that gives the values for all 256 characters. Don't be concerned about Unicode for this exercise.

Required Statements: keyboard input, output

Sample Output:



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Enter the credit card number (XX XX XX XX):  16 26 26 26
The correct number and code is 16 26 26 26 Q

Enter the credit card number (XX XX XX XX):  26 54 74 56
The correct number and code is 26 54 74 56 C

Enter the credit card number (XX XX XX XX):  26 26 26 26
The correct number and code is 26 26 26 26 A

Enter the credit card number (XX XX XX XX):  26 54 74 55
The correct number and code is 26 54 74 55 B
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