Assignment name : equation

Expected files : equation.c

Allowed functions: printf

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The goal of this exercise is to find all possible answers to the following

equation :

AB + CA = n

where A, B, and C are individual digits [0-9] and n is an integer.

Note that here AB is not the product of A and B. It is merely a two digit number

with A being the first digit (tens place) and B the second digit (ones place).

Implement a function that, given an integer n, prints on the standard

output all the possible values of A, B, C for which the equation is true.

Your function must be declared as follows:

void equation(int n);

If a solution could not be found, nothing is printed.

Examples:

For the value n = 42, the output would be :

$> ./equation 42

A = 0, B = 2, C = 4

A = 1, B = 1, C = 3

A = 2, B = 0, C = 2

A = 3, B = 9, C = 0

$>

For the value n = 111, the output would be :

$> ./equation 111

A = 2, B = 9, C = 8

A = 3, B = 8, C = 7

A = 4, B = 7, C = 6

A = 5, B = 6, C = 5

A = 6, B = 5, C = 4

A = 7, B = 4, C = 3

A = 8, B = 3, C = 2

A = 9, B = 2, C = 1

$>

For the value n = 0, the output would be :

$> ./equation 0 | cat -e

A = 0, B = 0, C = 0$

$>

Note:

- The displayed output will always be sorted in ascending order beginning with A, then B and then C.

(as shown in the examples above)