NWERC 2019 Practice

Problem A
Account Numbers
Time limit: 1 second

Organising programming contests is a lot of work. One of the many tasks, some say the most important one, is to arrange reimbursement for the jury (and other volunteers) for their travel to the contest. In order to obtain their reimbursements, the jury members provide (among other things) their *International Bank Account Number*s (IBANs), uniquely identifying their bank accounts. If they make a typo when writing their IBAN, the reimbursement cannot be sent, but fortunately an IBAN contains two check digits that can be used to mitigate such errors. Let us help the contest organisers by verifying that a provided IBAN is correct, so that the reimbursements are not delayed more than necessary.

For those of you who do not know, an IBAN is a string consisting of between 15 and 34 upper-case letters and digits. To validate a given IBAN, the following amazing procedure is used.

1. Move the first four characters to the end of the string.
2. Replace each letter by digits, where $A = 10$, $B = 11$, ..., $Z = 35$.
3. Interpret the resulting string as a decimal number and compute the remainder modulo 97. An IBAN is valid if and only if the remainder is 1.

For example, consider the IBAN "`NL20INGB0001234567`". After performing the first step we get the string "`INGB0001234567NL20`", and then after replacing letters with digits we get the number 182316110001234567232120. The remainder of this number modulo 97 equals 1, so this was indeed a valid IBAN.

Input

The input consists of:

- One line with a string s ($15 \leq \text{length}(s) \leq 34$): the IBAN to validate. The IBAN only contains upper case letters and digits.

Output

If the given IBAN is valid, output "`correct`". Otherwise, output "`incorrect`".

Sample Input 1	Sample Output 1
NL20INGB0001234567	correct

Sample Input 2	Sample Output 2
NL20ASNB0001234567	incorrect

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