

11 Lottery algorithm

5 points



Introduction

As Christmas has already passed, John has seen how most of his workmates left for a new life in the Caribbean Sea after they all won the 'Sorteo del Gordo de Navidad'. All won the prize, except for him, who also played but he didn't have the correct algorithm and he chose the wrong number.

After having deeply read several advanced numerology books, he is quite sure that by applying this algorithm, he will win. The algorithm consists on taking the candidate number (formed by 5 digits), dividing it by the day of the month he was born, and if the first decimal is not 0 and the second decimal equals 0, the number is a winner.

Input

Two integer values: the lottery number and the day of the month he was born.

Output

The output is 0 if it's not a good number, or 1 if it's the winning combination.

Example 1

Input

84367 27

Output

1

Example 2

Input

84368 27

Output

0