

We define super digit of an integer using the following rules:

If x has only 1 digit, then its super digit is x .

Otherwise, the super self of x is equal to the super self of the digit-sum of x . Here, digit-sum of a number is defined as the sum of its digits.

For example, super digit of 9875 will be calculated as:

```
super_digit(9875) = super_digit(9+8+7+5)
                  = super_digit(29)
                  = super_digit(2+9)
                  = super_digit(11)
                  = super_digit(1+1)
                  = super_digit(2)
                  = 2.
```

You are given number X . You will be calculation super digit of X .

Input Format

X will be a positive integer

Output Format

Y will be super digit of X .

Sample Input

1483

Sample Output

7

Explanation

```
super_digit(X) = super_digit(1483)
               = super_digit(1+4+8+3)
               = super_digit(16)
               = super_digit(7)
               = 7.
```