

# Project Euler #40: Champernowne's constant

This problem is a programming version of [Problem 40](#) from [projecteuler.net](#)

An irrational decimal fraction is created by concatenating the positive integers:

$$0.123456789101112131415161718192021 \cdots$$

It can be seen that the 12<sup>th</sup> digit of the fractional part is 1.

If  $d_n$  represents the  $n^{\text{th}}$  digit of the fractional part, find the value of the following expression.

$$d_1 \times d_2 \times d_3 \times d_4 \times d_5 \times d_6 \times d_7$$

## Input Format

First line contains  $T$  that denotes the number of test cases. This is followed by  $T$  lines, each containing an integer.

$$i_1 \ i_2 \ i_3 \ i_4 \ i_5 \ i_6 \ i_7$$

## Output Format

Print the answer corresponding to the test case.

## Constraints

$$1 \leq T \leq 10^5$$

$$1 \leq i_1, i_2, i_3, i_4, i_5, i_6, i_7 \leq 10^{18}$$

## Sample Input

```
1
1 2 3 4 5 6 7
```

## Sample Output

```
5040
```