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:

$0.12345678910\textbf{ 1 }11213141516171819 2021 \cdots$

It can be seen that the 12^{th} digit of the fractional part is 1.

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

$d_{i_1} \times d_{i_2} \times d_{i_3} \times d_{i_4} \times d_{i_5} \times d_{i_6} \times d_{i_7}$

Input Format
First line contains T that denotes the number of test cases. This is followed by T lines, each containing an 7 integers.
$i_1 i_2 i_3 i_4 i_5 i_6 i_7$

Output Format
Print the answer corresponding to the test case.

Constraints
$1 \le T \le 10^{5}$
$1 \le i_1,i_2,i_3,i_4,i_5,i_6,i_7 \le 10^{18}$

Sample Input

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

Sample Output

```
5040
```