

Problem G: The Total is Right

Time limit: 5 seconds

The total is right is a popular TV game that has been broadcast in many countries. The goal of the game is to reach a chosen number N using the four arithmetic operations ($+$, $-$, \times , \div) and six given integer numbers m_i for $1 \leq i \leq 6$. All the intermediate numbers must be positive and any division must be exact (for example, it is not possible to divide 5 by 2). The input numbers m_i as well as all intermediate numbers can be used at most once, but you are not required to use all input numbers.

For instance, suppose $N = 888$ and $m_1 = 100$, $m_2 = 6$, $m_3 = 75$, $m_4 = 3$, $m_5 = 1$, and $m_6 = 6$. We can then obtain $N = 888$ by computing

$$\begin{array}{ll} 75 - 1 = 74 & \text{(using } m_3/m_5\text{)} \\ 6 + 6 = 12 & \text{(using } m_2/m_6\text{)} \end{array}$$

and finally

$$74 \times 12 = 888. \quad \text{(using } m_3/m_5 \text{ and } m_2/m_6 \text{ respectively)}$$

Hence, in that example, the total is right!

Input

The input file consists of multiple test cases. The first line of the input file consists of a single integer indicating the number of test cases. Each test case follows, and consists of one single line that consists of seven integers N , m_1 , m_2 , m_3 , m_4 , m_5 , and m_6 , each separated by a single space. The integer $101 \leq N \leq 999$ is the number that must be reached, and the integers m_i are the numbers that can be used to reach N : for each $1 \leq i \leq 6$, we have $m_i \in \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 25, 50, 75, 100\}$.

Output

For each test case in the input, your program should print one line consisting of the string **The total is right** (followed by a newline) or of the string **Impossible** (followed by a newline), depending on whether or not it is possible to obtain exactly N using some or all of the numbers m_i for $1 \leq i \leq 6$ according to the rules of the game. There should not be any blank lines in your output.

Sample Input

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2
888 100 6 75 3 1 6
449 2 6 100 10 2 8
```

Sample Output

```
The total is right
Impossible
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