A. Dividing water

Description

Lanran has a large bottle of water with s ml, and 2 cups with capacity n, m ml. He wants to divide all his water equally into 2 containers to give to his 2 friends. Because there is no scales on the cups, during one operation Lanran can only pour a full cup of water. Now he wants to know what is the minimum operations he should do to divide these water equally. If Lanran can not do that, please output 'impossible'(without quotes)

Input format

The first line contains an integer $T(1 \leq T \leq 1\ 000)$, indicates there are T testcases.

For each testcase, there are 3 integers in one line $s, n, m(s == n + m, 1 \leq s \leq 100, 1 \leq n, m)$.

Output format

Output one integer per line, indicating the answer.

Sample input

```
2
7 4 3
4 1 3
```

Sample output

```
impossible
3
```

Limitations & Hints

1 second for each test case. The memory limit is 256MB.

For 60% of the test cases, s<=20.

For 100% of the test cases, s<=100.