CCC '06 J2 - Roll the Dice

Time limit: 2.0s **Memory limit:** 256M

Canadian Computing Competition: 2006 Stage 1, Junior #2

Diana is playing a game with two dice. One die has m sides labelled $1, 2, 3, \ldots, m$.

The other die has n sides labelled $1, 2, 3, \ldots, n$.

Write a program to determine how many ways can she roll the dice to get the sum 10.

For example, when the first die has 6 sides and the second die has 8 sides, there are 5 ways to get the sum 10:

- 2 + 8 = 10
- 3 + 7 = 10
- 4 + 6 = 10
- 5 + 5 = 10
- 6 + 4 = 10

Input

The input is given as two integers. First, the user will enter in the number m $(1 \leq m \leq 1000)$.

Second, the user will enter the number n $(1 \leq n \leq 1000)$.

Output

The program prints out the number of ways 10 may be rolled on these two dice. Note that in the output, the word `way` should be used if there is only one way to achieve the sum of 10; otherwise, the word `ways` should be used in the output. That is, if there is only one way to get the sum 10, the output should be:

```
There is 1 way to get the sum 10.
```

Sample Input 1

```
6
8
```

Sample Output 1

```
There are 5 ways to get the sum 10.
```

Sample Input 2

```
12
4
```

Sample Output 2

```
There are 4 ways to get the sum 10.
```