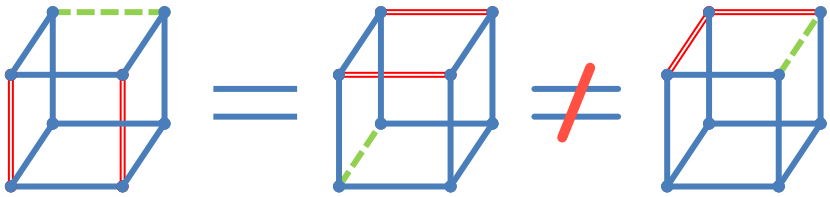
# Problem 1 – Cubes

You are given 12 sticks of the same length, each colored with a color in the range [1 … 4]. Write a program to find the number of different cubes that can be built using these sticks. Note that two cubes are equal if a sequence of rotations exists that transforms the first cube to the second. For example, the first two cubes below are equal (after two rotations) but are different from the third cube:



Print on the console the number of different cubes that can be obtained using the sticks provided.

## Input

- The input data should be read from the console. It will consist of a single line that contains 12 numbers in the range [1 … 4] separated by spaces.
- The input data will always be valid and in the format described. There is no need to check it explicitly.

## Output

- The output should be printed on the console. It should consist of 1 line:
- On the only output line print a single integer number, representing the number of cubes that can be created using the provided sticks.

## Constraints

- Allowed working time for your program: 0.1 seconds. Allowed memory: 16 MB.

## Examples

| Input | Output |
|---|---|
| 1 2 2 2 2 2 2 2 2 2 2 2 | 1 |
| 1 1 2 2 2 3 3 3 3 3 3 3 | 340 |