# SAC '22 Code Challenge 4 Junior P2 - Obligatory Geometry Problem

**Time limit:** 1.0s **Memory limit:** 256M

After being bored for too long, Wesley has decided to set another geometry problem!

This time, however, it is solvable by people that do not have a $543$-line polygon template.

Wesley will ask you $Q$ queries of $6$ different types for $N$ polygons:

- `set square i`: Set the $i^{\text{th}}$ element to a square.
- `set circle i`: Set the $i^{\text{th}}$ element to a circle.
- `set triangle i`: Set the $i^{\text{th}}$ element to a triangle.
- `get square i`: Output `1` if the $i^{\text{th}}$ element is a square or a `0`, otherwise.
- `get circle i`: Output `1` if the $i^{\text{th}}$ element is a circle or a `0`, otherwise.
- `get triangle i`: Output `1` if the $i^{\text{th}}$ element is a triangle or a `0`, otherwise.

Initially, all $N$ polygons are rhombuses and return `0` for all `get` queries.

Can you solve Wesley's obsession with geometry?

## Constraints

$1 \leq N, Q \leq 10^5$

$1 \leq i \leq N$

### Subtask 1 [20%]

$N = 1$

### Subtask 2 [80%]

No additional constraints.

## Input Specification

The first line will contain $N$ and $Q$, the number of polygons and queries, respectively.

The next $Q$ lines will contain one of the $6$ queries above.

## Output Specification

For each `get` query, output `1` if the polygons are the same; otherwise, output `0`.

## Sample Input 1

```
1 5
get square 1
set square 1
get square 1
set circle 1
get triangle 1
```

## Sample Output 1

```
0
1
0
```

## Sample Input 2

```
3 6
set square 2
set triangle 1
get square 2
set circle 3
get circle 3
get triangle 1
```

## Sample Output 2

```
1
1
1
```