# Prewitt Elevators

| | |
|---|---|
| Input file: | `standard input` |
| Output file: | `standard output` |
| Time limit: | 2 seconds |
| Memory limit: | 64 megabytes |

The Prewitt Building has $N$ floors. An elevator serves the building for reaching different floors. The elevator is operated as follows. It has three buttons and a selector. The three buttons are labelled by three numbers ($A$, $B$ and $C$). To go to a floor, the person pushes one of the buttons and sets an integer $X, (X \geq 1)$ on the selector. Then the elevator goes to floor number $= X*$ the number that has been pressed. The floor to reach can be set only once. Find out the number of floors that are accessible from the ground floor.

## Input

The first line contains an integer $N(1 \leq N \leq 10^{15})$, denoting the number of floors in the building.
The next line contains 3 space-separated integers $A$, $B$ and $C(1 \leq A, B, C \leq 10^9)$.

## Output

The output contains one integer denoting the answer.

## Example

| standard input | standard output |
|---|---|
| 15<br>2 3 4 | 10 |

## Note

For sample case:

```
1 <- Can't Reach
2 <- Set X = 1 and push A (1x2)
3 <- Set X = 1 and push B (1x3)
4 <- Set X = 1 and push C (1x4)
5 <- Can't Reach
6 <- Set X = 2 and push B (2x3)
7 <- Can't Reach
8 <- Set X = 2 and push C (2x4)
9 <- Set X = 3 and push B (3x3)
10 <- Set X = 5 and push A (5x2)
11 <- Can't Reach
12 <- Set X = 3 and push C (3x4)
13 <- Can't Reach
14 <- Set X = 7 and push A (7x2)
15 <- Set X = 5 and push B (5x3)
```

Hence the number of reachable floors are 10.