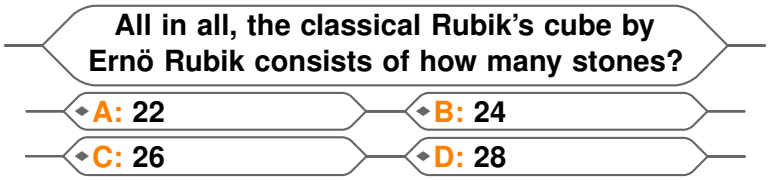
Problem J: Rubik

Your dear friend Leon is participating in a quiz show where he could potentially win a lot of money, if only he could answer the final question:



Leon knows quite a few things that could help solve this problem. He knows that the classical Rubik's cube has the shape of a cube of edge length n, where the surface is assembled from stones of unit cube size, wired together on the inside with something that is not considered to be stones.

Using this knowledge the question might seem easy to you, but unfortunately Leon is not that good at maths, so he calls you. Can you help him?

Input

Input consists of five integers $n, a_{\mathrm{A}}, a_{\mathrm{B}}, a_{\mathrm{C}}, a_{\mathrm{D}}$ on one line, where n describes the size of the Rubik's cube and a_{X} are the four different possible answers. All given answers will be positive integers $\leq 10^9$ and $0 < n \leq 19$. It is guaranteed that there is exactly one right answer.

Output

Output the letter corresponding to the right answer (`A`, `B`, `C`, or `D`).

Sample Input 1

```
3 22 24 26 28
```

Sample Output 1

```
C
```

Sample Input 2

```
1 2 1 3 4
```

Sample Output 2

```
B
```

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