
A0001. Cool lines

P56059_en

A line of words is *cool* if its first word, word in the middle and last word are identical.

Your task is to write a program that reads various lines, and prints if all the lines are cool, if there is not any cool line, or if there are some lines that are cool and some that are not.

Input

The input is a sequence of one or more lines. Each line starts with a natural number that indicates its number of words. If this number is even, the middle word does not exist, therefore the line cannot be cool. After the natural number, each line has, at least, two words.

Output

The program has to print “|all cool|”, “|none cool|” or “|both types|” depending on the case.

Sample input 1

```
7 a b b a b b a
5 hello bye hello bye hello
```

Sample output 1

```
all cool
```

Sample input 2

```
3 cat dog cat
3 x x x
3 hi hi hi
```

Sample output 2

```
both types
```

Sample input 3

```
4 house house house house
5 a b a b c
```

Sample output 3

```
none cool
```

Problem information

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Generation: 2026-01-25T11:20:43.171Z

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