Problem ID: drawingnumbers

You decide to travel to the future and check up on your hundred-year-old self. Future-you is playing bingo, and since they have misplaced their glasses, you decide to help them out with the game.

They have a card with 25 distinct numbers on it, arranged in a 5×5 square. The host of the game calls out random numbers, and you mark each called number that future-you has on their card. When a player has all five numbers of a row, column, or diagonal marked, they get to yell "Bingo!"

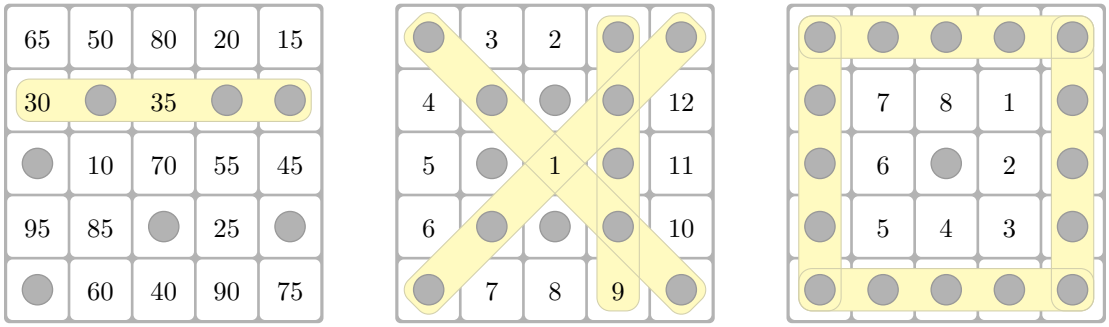

Figure 1: Illustrations of the first three samples and their valid solutions.

Future-you is really looking forward to that, so they ask you how many more numbers are required in the best-case scenario, and which numbers those are.

Input

The input consists of five lines, each with five integers b ($0 \leq b \leq 100$ for each b), representing the bingo card. A 0 represents a number already drawn and marked. The positive integers (numbers yet to be drawn) are distinct.

Output

Output an integer a – the minimum amount of numbers that need to be drawn to complete a row, column, or diagonal – followed by the a numbers required (in any order). If multiple combinations of a numbers are applicable, any of them will be accepted.

Sample Input 1

```
65 50 80 20 15
30 0 35 0 0
0 10 70 55 45
95 85 0 25 0
0 60 40 90 75
```

Sample Output 1

```
2
35 30
```

Sample Input 2

```
0 3 2 0 0
4 0 0 0 12
5 0 1 0 11
6 0 0 0 10
0 7 8 9 0
```

Sample Output 2

```
1
1
```

Sample Input 3

```
0 0 0 0 0
0 7 8 1 0
0 6 0 2 0
0 5 4 3 0
0 0 0 0 0
```

Sample Output 3

```
0
```

Sample Input 4

```
97 83 90 95 98
86 78 84 94 76
92 77 81 89 100
99 80 91 87 96
82 88 79 85 93
```

Sample Output 4

```
5
90 84 81 91 79
```