

Dice Game

Input File: DiceGameIn.txt

A group of n ladies are competing in a dice game in which each player rolls one standard die 10 times in each of r rounds. Player 1 completes her rounds first, then player 2, then player 3, etc., with player n rolling last. A player's score is the total of all of her die rolls. Once a player begins her turn, she continues to roll the die until she completes all r rounds *or* at the end of a round it is deemed she cannot win. Then the die is passed to the next sequential player.

Most games are completed in fewer than the maximum $r \times n$ rounds. For example, if two players were playing a game in which there were four rounds ($r == 4$) and the first player scored a perfect total of 240 points, then the game would be over as soon as the second player completed a round in which she scored less than 60 points. Your task is to determine the minimum number of rolls required to complete a game, the winning score, and winning player(s).

Inputs:

The first input will be the number of games to consider. This will be followed by two lines per game. The first of these lines will contain the number of players followed by the number of rounds for this game. The second line will contain a series of $n \times r$ integers that represent the total of the ten die rolls for each round of the game, had they not been interrupted. The first group of r numbers will be player one's rolls, the second group of r numbers will be player two's rolls, etc. All numbers on a line will be separated by a single space.

Output:

There will be two lines of output per game. The first line will contain the minimum number of rounds required to complete the game followed by the winning score. The second line will contain the player number(s) that won the game. All outputs on a line will be separated by a space.

Sample Input

```
4
2 4
60 60 60 40 60 40 50 34
2 4
60 60 60 40 60 41 60 60
4 4
60 45 60 35 60 19 60 30 50 60 20 30 50 60 20 50
2 5
10 10 10 10 10 60 10 20 30 40
```

Sample output

```
7 220
1
8 221
2
12 200
1 3
6 60
2
```