Level 3

It's your turn to steer the spaceship

- You are given a list of space stations

- **Steer your spaceship to each space station**

- Space is **1-dimensional**

- For each space station:

  - Your spaceship starts at position 0

  - **Generate a movement sequence**

  - Your spaceship must reach the position of the station exactly

  - A time limit is given

  - The sequence must complete within the time limit

  - *The time limit is very generous; you don't need a fast solution!*

- Allowed paces are explained on the next slide

Paces

- There are limitations on how your spaceship can move

- Each sequence must start and end with pace 0

- The slowest pace is 5 or -5

- The fastest pace is 1 or -1

- Your spaceship can only gradually step up the pace as well as step down

-1 ⇆ -2 ⇆ -3 ⇆ -4 ⇆ -5 ⇆ 0 ⇄ 5 ⇄ 4 ⇄ 3 ⇄ 2 ⇄ 1

Input

Name	Description	Example
N	Number of cases	3

Space station and time limit (repeated N times)	The position of the space station and the time limit separated by a space	`2 25`
		`5 39`
		`-7 46`

Output

Name	Description	Example

Sequence (repeated N times)	A list of integers separated by spaces, each representing a pace	`0 5 5 0`
		`0 5 4 3 4 5 0`
		`0 -5 -4 -3 -2 -3 -4 -5 0`

Good Luck!

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