

C++ Fundamentals Exam

The following tasks should be submitted to the SoftUni Judge system.

Task 2 – Space

You are a spaceship (marked as "K") on a quest to gather as much space dust as possible. In order to collect the space dust, you must reach a planet, marked as **V**, **S**, **U** or **N**. Once you've reached a valid planet, you should **increase your space dust value** with the **ascii value of the planet's symbol** (Example: V -> 86). If you reach an invalid planet, you lose **half of your current space dust**. If you go out of the matrix, you lose **quadruple of your current space dust**. The planets that you have reached should be marked with "-"

The valid commands you will receive are:

- L** -> Left
- R** -> Right
- U** -> Up
- D** -> Down
- S** -> Stop

You are to move until you reach command "S".

After you have stopped moving, you should print the sum of the space dust you have collected and the initial space dust in this format: **"Space Dust Collected: {spaceDust}"** and **the matrix** afterwards

Input

- On the **first line**, you are given the integer **N** - **number of rows and columns** of the matrix
- On the **second line**, you are given a sequence of elements - **the matrix**
- On the **third line**, you are given the **initial space dust**
- On the next **lines**, you are given certain commands – **L, R, U, D**
- On the final line, you receive the command – **"S"**

Output

- Print the collected **space dust** and **the matrix**.

Constraints

- The size of the matrix will be between **[2...5]**
- The spaceship will always be indicated with 'K'
- The valid planets will always be indicated with 'V', 'S', 'U' or 'N'
- There will be cases, where invalid and valid symbols are repeated
- There will not be a case, where the space dust become a floating point number

Examples

Input	Output
3	Space Dust Collected: 6
J V E	J - -
a K M	a - -

Z F A	Z K -
10	
U	
R	
D	
D	
L	
S	