A military drone has just crossed the south border of our country, thus threatening the sovereignty of the country and putting the life of its citizens in danger. Ali was, by coincidence, in the spot, playing with his cute lovely rocket. He noticed the existence of the drone and decided courageously to defend his country.

The drone seemed for a moment to be stationary at the point having the coordinates (x, y, z). Ali, instead, was enjoying his day at the point having the coordinates (a, b, c). Launching the rocket follows the following rules:

- A sequence of letters must be given to the software in the rocket.
- This sequence is composed solely of three types of letters: R, F and U
- If the rocket is at position (a, b, c), choosing letter R displaces the rocket to (a+1, b, c)
- If the rocket is at position (a, b, c), choosing letter F displaces the rocket to (a, b+1, c)
- If the rocket is at position (a, b, c), choosing letter U displaces the rocket to (a, b, c+1)

For example, if the rocket is at point (a, b, c), applying the sequence "RRUF" will displace the rocket to the point (a+2, b+1, c+1).

Unfortunately, Ali can't choose the sequence arbitrarily. Instead, he has a long sequence composed of the letters R, F and U but might not be a correct sequence to hit the drone accurately. Ali can choose a subsequence of that sequence and apply it to the rocket. A subsequence of a sequence s is a sequence t formed by cutting out letters of s without changing their order. For example, "abc" is a subsequence of "takbyac", but "abk" is not.

Ali doesn't have enough time to search for the correct subsequence. Can you help him defend his country?

Input format:

- The first line contains x, y, z, a, b and c where all of the values are less than 100000 in absolute value.
- The second line contains a long string from which Ali can form his subsequence.

Output format:

- If it were possible to find a suitable subsequence, print "Launch the rocket" followed by that suitable subsequence. (if there are multiple possibilities, print any of them).
- If it were impossible to hit the drone using the given string, just print "Don't Launch the Rocket".

Sample Input: 10 10 10 6 5 7

URFRFRRUUUUFUFFFUF

Sample Output: Launch the Rocket

URFRRRUFFFUF

Explanation: The chosen subsequence is chosen by cutting out the letters colored in red without changing their order: URFRFRRUUUUFUFFFUF