CHANGE THE POSITION-5

Next, we are going to analyze the minimum necessary number of movements to exchange the positions of the red and the blue small cubes, and the movements to achieve it, depending on the number of cubes we are playing with.

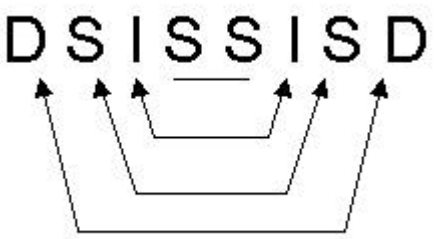
✍✍Let's see, first of all, the minimum necessary number of movements:

- ✍✍With a counter of each color: 3 movements
- ✍✍With two cubes of each color: 8 movements
- ✍✍With three cubes of each color: 15 movements

Do you see any numerical rule? What you think it is the minimum number of movements with four cubes of each color?

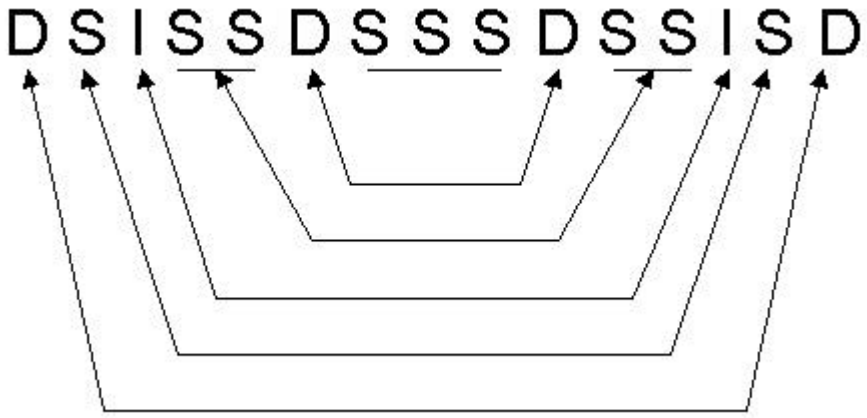
✍✍**Let's analyze** now the succession of movements. If we take a good look, it's easy to notice its symmetrical disposition and the logical order followed by the three possible movements

- ✍✍With **two cubes** of each color:



(1) RJLJJLJR

✍✍With **three cubes** of each color:



(2) RJLJJRJJJRJJLJR

✍✍**Which** do you think it is the succession of movements to exchange the positions of four red cubes and four blue ones, with the least possible number of movements? **Verify** it is so.

YOU WILL NEED:

4 small cubes of each color, The sheet of game 2 (9 squares), a pencil and a blank sheet