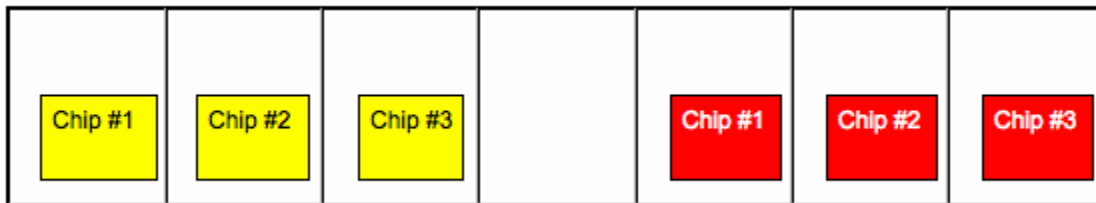


Jumping Chips

The three red chips need to exchange positions with the yellow chips.

- The yellow chips can only move right.
- The red chips can only move left.
- A chip can move into an empty square.
- A chip can jump over a different color chip as long as there is an empty square to land in.
- A chip cannot jump over two chips or over a chip of the same color.



Extensions:

To incorporate some movement, we broke up the class into smaller groups. Instead of squares we used chairs; instead of chips we used children. Two different colored stickers or shirts could be used to identify the children. Many of the children we worked with were ESL with very little English language ability. The children had lots of fun moving around and there was always one child in the group who found the pattern.

If you find your group needs a hint, reduce the number of children (or chips) to four. To make it harder, add two more, to make 4 per color. What would happen if you had 3 yellow and 4 red? Is it solvable?

The Math in This Problem:

Mathematics is sometimes viewed as the science of patterns, which can be spatial, temporal, or sequential. Through applying strategies and analytical reasoning, Jumping Chips presents students with the challenge of recognizing patterns using chips and even themselves!