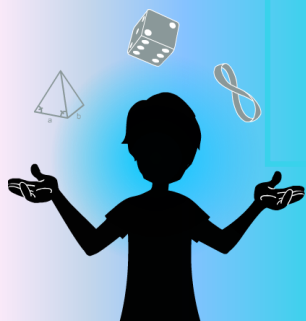


PUZZLING CARTOON

- THE EXTRA PIECE -



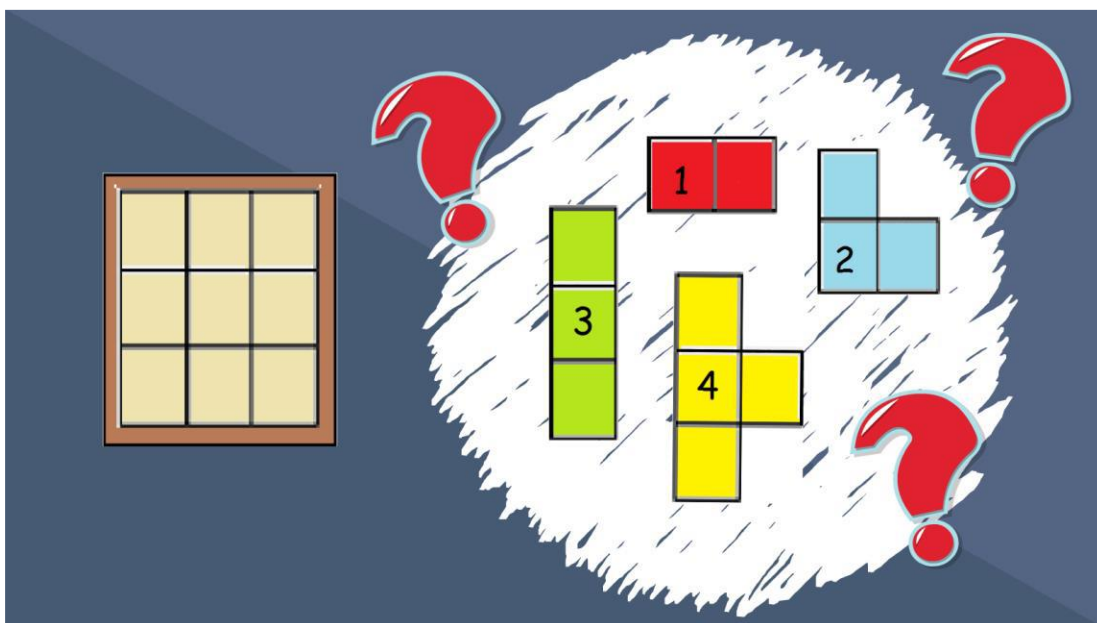
AMAZINGMATHS

Materials:

- Video of the puzzle
- Sheets of paper
- Pencils

The puzzle

Justin, a young 2-year-old boy loves jigsaw. He does jigsaws every day of the week. As a prank, his brother Hugo mixes the puzzle pieces of two different jigsaw puzzles. The next morning, Justin wants to do a 3-piece jigsaw puzzle, but he realizes there is an extra piece. He can not remember which of these pieces belongs to the other puzzle.



Can you help Justin find the extra piece?



PUZZLE SOLUTION



The answer:

The extra piece is number 3.

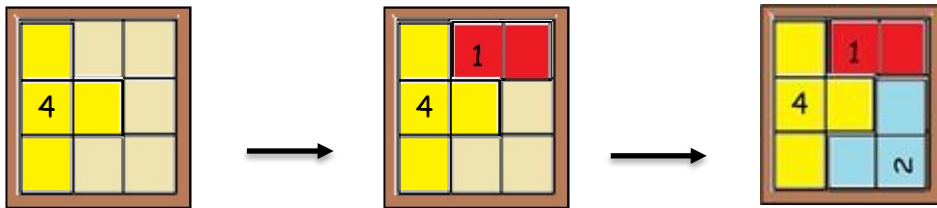


The solution:

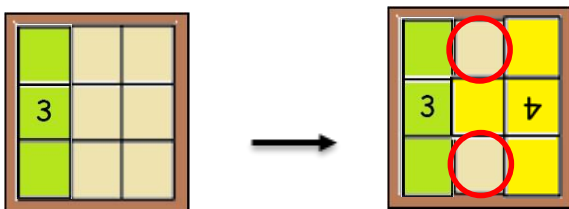
To find the solution, we must take into account the shape of the puzzle's base, which is of 3 squares per 3 squares. With this information, we know that the three pieces of the puzzle must cover a total of 9 squares.



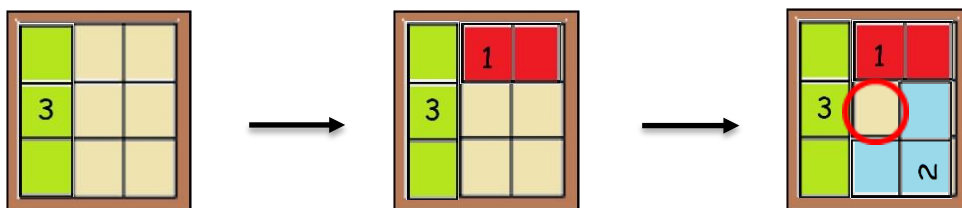
Pieces number 3 and 4 are the two pieces that cover the most squares. It would be a good idea to place them first. If we start with piece number 4, pieces number 1 and 2 can complete the puzzle and fill all the spaces. This is a way to complete it.



If piece number 3 is placed first on the puzzle, then we place piece number 4, pieces 1 and 2 cannot fit.



Without piece number 4, there is an empty space left in the middle of the puzzle.



If we place piece number 3 in the middle, it is not possible to complete the puzzle.



Therefore, we can conclude that it is impossible to complete the puzzle with piece number 3.