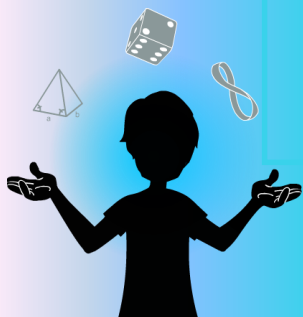


PUZZLING CARTOON

- THE BUILDING -



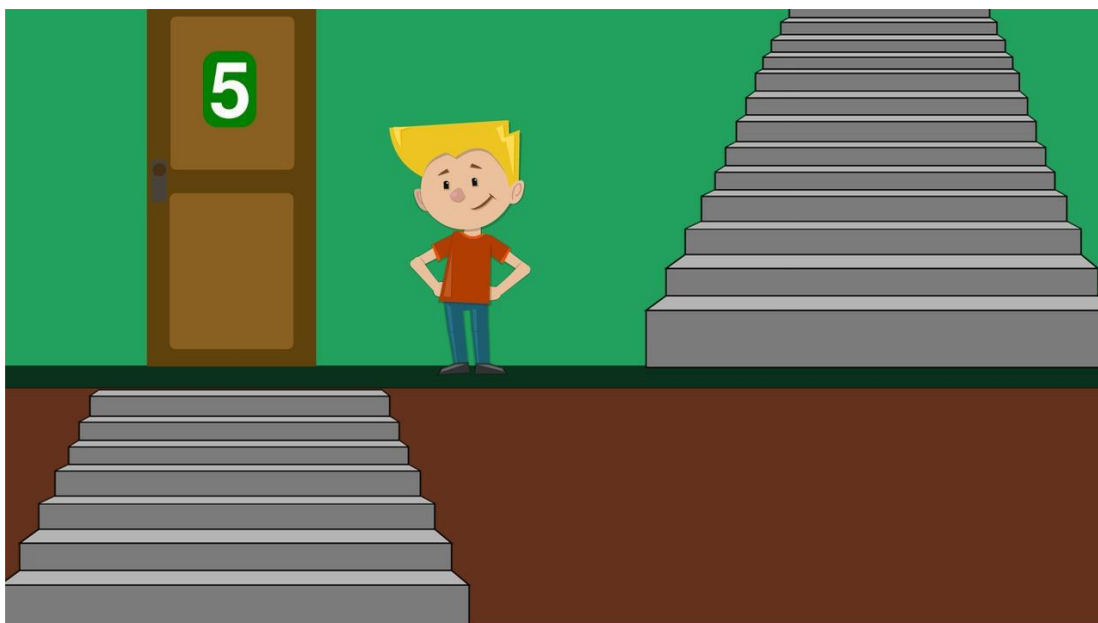
AMAZINGMATHS

Materials:

- Video of the puzzle
- Sheets of paper
- Pencils

The puzzle

William lives in the same building as his friend Gabrielle. The apartment of Gabrielle's family is 6 floors higher than the apartment of William's family. A Saturday afternoon, Gabrielle asks William to come play at her place. William goes up the stairs to go see Gabrielle. Halfway there, he reached the 5th floor.



On which floor does Gabrielle live?



PUZZLE SOLUTION



The answer:

Gabrielle lives on the 8th floor.

The solution:

We know that halfway there, William is on the 5th floor.

Since Gabrielle lives 6 floors higher than William, he has to go 6 floors up the stairs. The half of 6 floors is 3 floors. So, he went up 3 floors when he is on the 5th floor.

He has 3 other floors to go up to get to Gabrielle's.

$$5 + 3 = 8.$$

So, Gabrielle lives on the 8th floor.

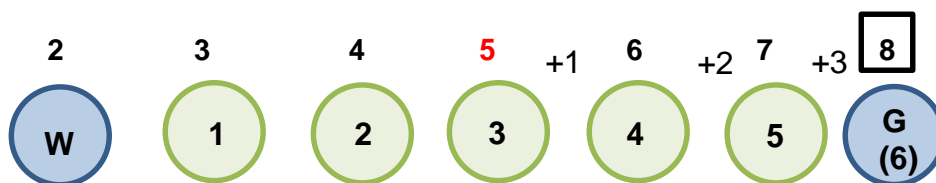
Here is a more visual solution:



Because Gabrielle lives 6 floors higher than William, we should start counting the floors after William's floor and consider that Gabrielle's floor is the 6th one from there. There are then 5 floors between William's apartment and Gabrielle's.

By looking at the floors' representation above, we notice that, 3 floors higher than William's apartment, there are still 3 left before arriving at Gabrielle's. So, we found the floor that is situated exactly between the two apartments. As mentioned in the puzzle, the floor that is halfway is the 5th one.

Floors:



Once we found the 5th floor, we simply have to count from that place until Gabrielle's floor to find her position (8th floor). We also know that halfway between the two apartments (on the 5th floor), there are still 3 floors left before getting to Gabrielle's. So, we can also add 3 floors to this 5th floor to discover that Gabrielle lives on the 8th floor ($5 + 3 = 8$).