

Bills paradox

What could have happened?

When you rotate the pieces, there is a bill left over or part of the bill is missing. You have to think about what could have happened, brainstorm and hypothesize: have the pieces shrunk, have they grown or is it magic? Are the 50 and the 100 bill the same size? Is it an optical effect? Does our sight deceive us?

Tip:

The parts have not changed dimensions.

Test your hypothesis

Measure the sides of the bills. If one bill is smaller than the other, how long is the missing extra-thin rectangle? Calculate his area. Measure the missing square if you flip it over, and calculate the area of the missing square. Do you get similar results?

Tip:

Remember the formula for calculating the area of a rectangle.

What is your conclusion?

You have brainstormed ideas, hypotheses, and tested them. What is your conclusion?

Tip:

Does sight deceive us? Does measuring and calculating reveal what is really going on?