

Simplify

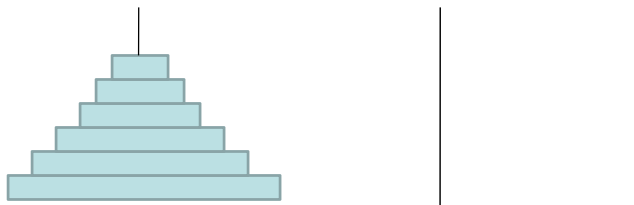
Take a number of several digits (say 7 or 8 digits). Reverse it and calculate the difference. Now if you tell me all but one of the digits in the answer (in any order), I can tell you the missing digit.

How can you go about figuring out the method?

- You can try some examples and look for a pattern.
- But if you do it on big numbers, it will be hard to figure out.

Towers of Hanoi

- Move one disk at a time
- No disk can sit on a smaller disk
- Get all disks from pole 1 to pole 3

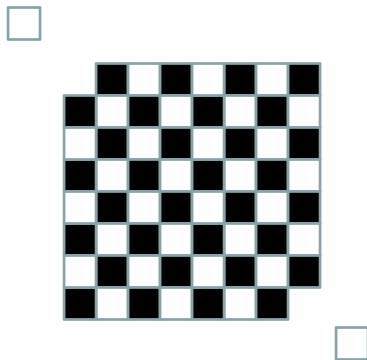


Chessboard Problem

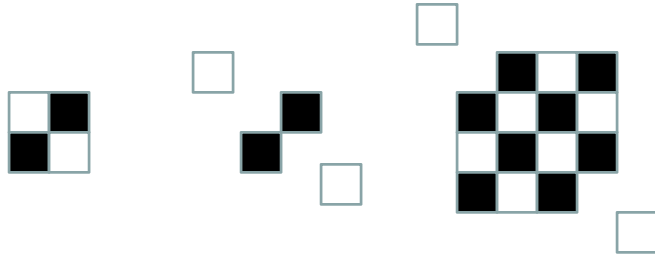
A domino covers two squares of a chessboard.

1. Can a chessboard be covered by dominos without any dominos sticking out?
2. Now, cut off the upper-left and lower-right corners of the chessboard. Can it still be covered by dominos completely?

Chessboard Visualization



Simplify



Find the Diagonal

- You are given A, B, C. Calculate X.
- What is the simpler problem?
- How does it relate?

