

# Brazil 2019/J5

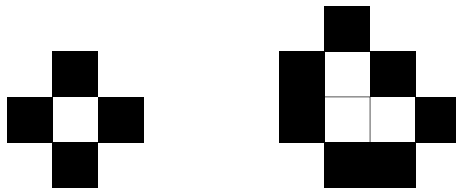
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TWITCH SOLVES ISL

Episode 134

## Problem

The left figure below shows one white square enclosed by four black squares, while the right figure shows three white squares enclosed by seven black squares.



For  $n \geq 1$ , what is the maximum number of white squares that can be enclosed by  $n$  black squares?

## Video

<https://youtu.be/hU0Zv1-UTH8>

## External Link

<https://aops.com/community/p13532156>

## **Solution**

We didn't write this one up because it was way too many cases and details to consider. You have to watch the video for an outline of the solution.