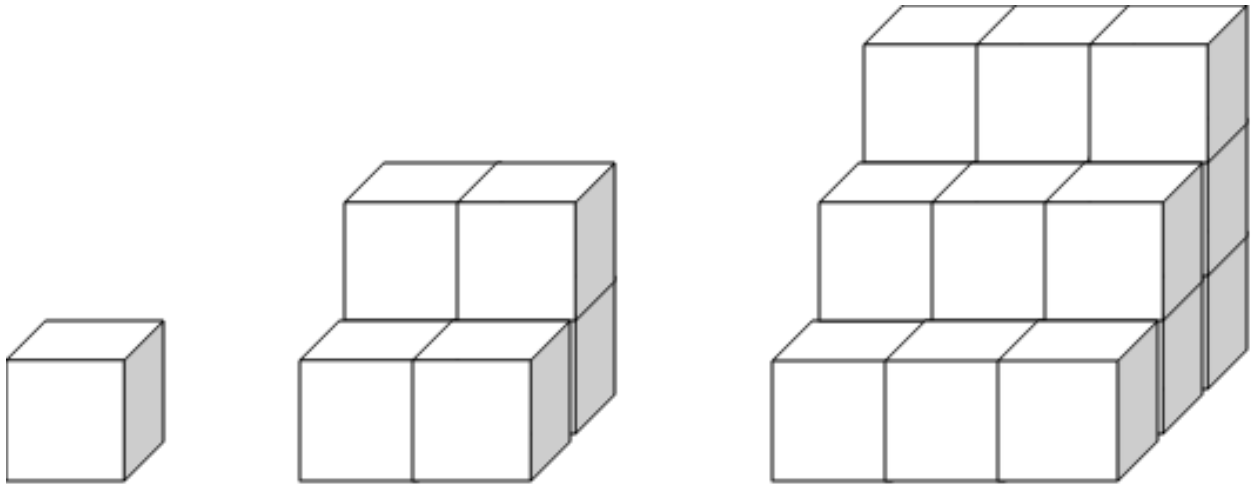


Growing Staircases

Level D



Consider this set of staircases constructed of blocks. The first staircase has one step, the second staircase has two steps, and the third staircase has three steps.

How many blocks in all are needed to make a staircase with five steps, assuming it follows the same pattern?

How many blocks make up the top step of a staircase with n steps?

How many blocks make up the first level (the base) of a staircase with n steps?

Given a staircase with 30 steps, explain a process you might follow to determine the number of blocks necessary to build the staircase.

Explain your answers.

