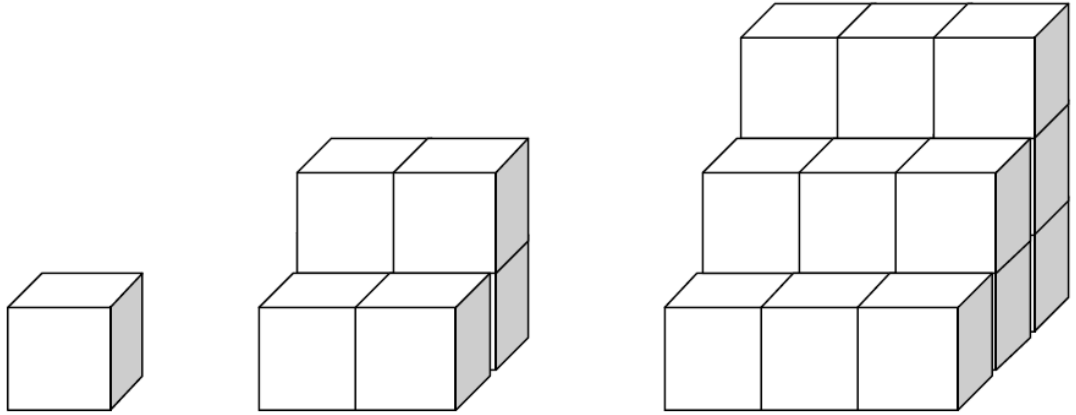


Problem solving challenge #5

1. Staircase problem



This set of staircases grows at a different rate.

How many blocks in all are needed to make a staircase with five steps?

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.