Staircase Patterns

Building Patterns with Connecting Cubes

Walk up a familiar staircase in the dark, and you don't feel around for each step. Your foot lifts just high enough, lands, and lifts again. You never counted the steps or measured a single one.

A child can hear "the numbers go up by two" a dozen times and still not quite believe it. But let them build a staircase of their own, one step at a time, and they'll feel the pattern grow right under their hands.

How to play

1. Build a train of two cubes, then four, then six, and line them up side by side like a little staircase. Ask the child what they notice.
2. When they say, "They keep getting bigger," ask: "How much bigger?" Then invite them to build the next one.
3. On the next page, each staircase is missing its last train. Ask what it should be before they color it in.

Watch for

The most common slip is stopping at "bigger." The child sees the trains growing and makes the next one longer, but not by any particular amount. If that happens, set two trains side by side and ask what changed between them. The rule is usually sitting right there, waiting to be noticed.

At the table, it can sound like this

"They keep getting bigger."

"How much bigger each time?"

"Two more. Two, four, six."

"So what should the next train be?"

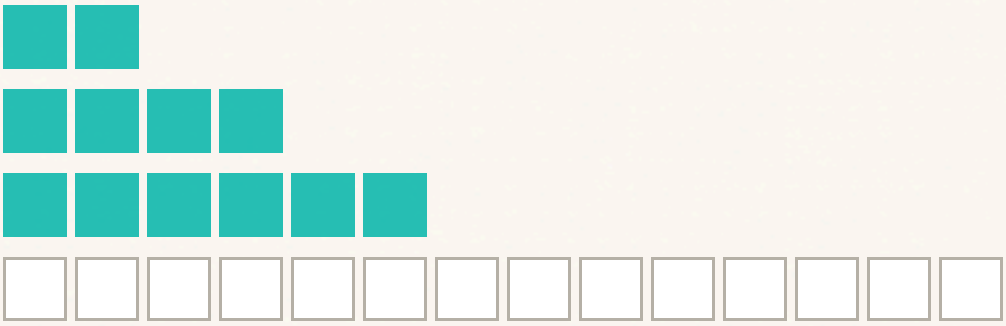
"Eight. It has to be eight."

Pattern Recognition

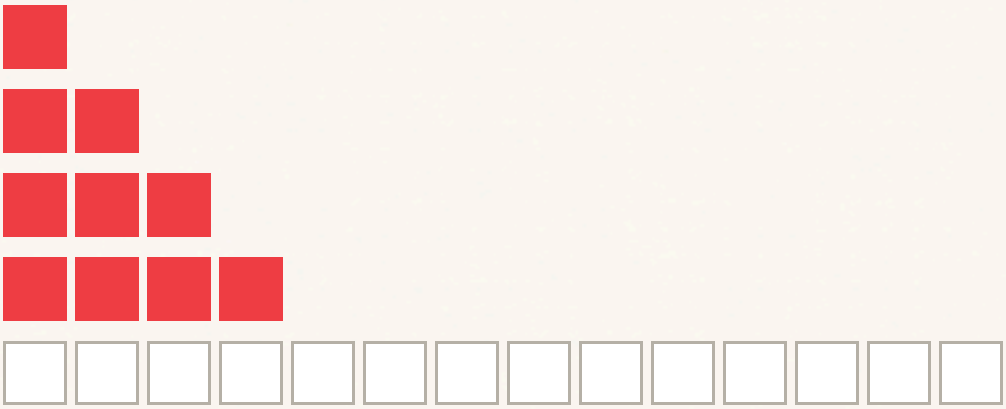
Copyright © 2026 MTM Scholars LLC. All rights reserved.
From *Why Has Math Changed?* by Michael A. Barahona
More free activities at mtmscholars.com

Staircase Patterns

How much longer is each train? _____ Then color the next train.



How much longer is each train? _____ Then color the next train.



How much longer is each train? _____ Then color the next train.

