



A Staircase Task

A same-color staircase is made from Cuisenaire rods. Each time that a rod is added to the staircase, it is offset by the space of a 1 unit rod. The rods that are used to make the staircase are 3 units in length.

- A. What is the surface area and volume of a staircase that is 3 units tall?
- B. Predict the volume and surface area of a staircase that is 5 units high. Find the actual surface area and volume, and compare them with your answer. Explain any discrepancies that you found.
- C. What will the volume and surface area be when you add the hundredth rod?
- C. Develop a general method or rule that can be used to determine the volume and surface area for any number of rods. Explain your thinking.