Problem-Solving Strategy: Draw a Picture

A grocer is stacking soup cans in a pyramid. The bottom row will have 7 cans. Each row will have 1 can fewer than the row below it. How many rows of cans will be stacked in the pyramid? How many cans will be stacked in all?

1. Draw a picture to solve the problem.

2. Explain how you drew your picture and how it helped you solve the problem.

   3. Extend It The grocer removes 4 cans from the pyramid above. Then he divides the rest of the cans into 4 equal groups and stacks each group of cans in a smaller pyramid. Each row in each pyramid has 1 more can than the row above it. How many rows of cans will each new pyramid have? How many cans will be in each new pyramid? Draw a picture to solve the problem.
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   **Answers will vary. Sample:** I know the bottom row has 7 cans, so I drew that row first. I know that each row has 1 fewer can than the row below it. So, the next row had 6. Continuing this pattern, there will be 7 rows and 28 cans in all.

3. **Extend It** The grocer removes 4 cans from the pyramid above. Then he divides the rest of the cans into 4 equal groups and stacks each group of cans in a smaller pyramid. Each row in each pyramid has 1 more can than the row above it. How many rows of cans will each new pyramid have? How many cans will be in each new pyramid? Draw a picture to solve the problem.