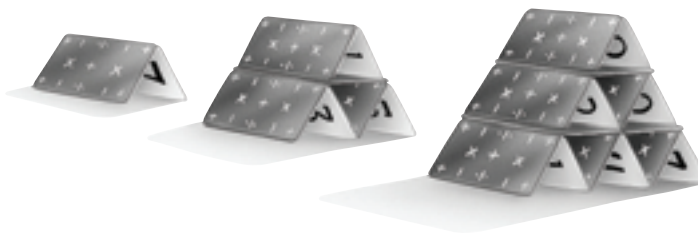


# 11-1 • Guided Problem Solving

**GPS** Student Page 603, Exercise 32

**Entertainment** Suppose you are building a tower of cards with levels as displayed here. Complete the table, assuming the pattern continues.

Levels	1	2	3	4	5
Cards Needed	2	7			



**Read and Understand**

- How many cards are needed for level 1? \_\_\_\_\_
- How many cards are needed for level 2? \_\_\_\_\_

**Plan and Solve**

- Using the given picture, count the number of cards in the third tower to find the cards needed for level 3. \_\_\_\_\_
- For each next level  $n$ , keep the previous cards and add a bottom row of cards and their lids. Write the recursive formula for  $a_n$ . \_\_\_\_\_
- Use the recursive formula to find the cards needed for level 4. \_\_\_\_\_
- Use the recursive formula to find the cards needed for level 5. \_\_\_\_\_
- Complete the table. \_\_\_\_\_

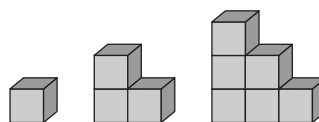
**Look Back and Check**

- To check your answers, build towers of cards with 4 and 5 levels. Then count the number of cards in each level. \_\_\_\_\_

**Solve Another Problem**

**9. Entertainment** Suppose you are building a tower of blocks with levels as displayed here. Complete the table, assuming the pattern continues.

Levels	1	2	3	4	5
Blocks Needed	1	3			



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