

Name \_\_\_\_\_

Period \_\_\_\_\_

### **Staircase Dilemma**

Apply the four steps of the problem solving process to the following problem.

I am planning to build a staircase. I am not sure how many steps high I want my stairs to be. I do know that a 1-step stair takes 1 block to build. A 2-step stair takes 3 blocks and a 3-step stair takes 6 blocks.

How many blocks will a 10-step stair use?

Find a pattern to your stairs and if you can, generalize your pattern so I would be able to find the number of blocks in any step  $n$  of stairs.

Be sure to explain your reasoning.