



THE GREAT WALL CHALLENGE!



Book 6



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Growth Pattern
for your
GREAT WALL!

Photo by Kevin Lafferty

Photo by chevalgal

Photo by Daddy Wirawan

Section 1 Section 2 Section 3

Each square or triangle counts as one block!



Students Use Growth Patterns to Create Formulas and Solve for Variables!



Includes a Video Tutorial for Each Step of this Problem!



MANIAC MONKEYS, GRIEVOUS GIRAFFES, AND HUNGRY POLAR BEARS ARE ATTACKING!



Will your math skills be enough to save your school?



Build the **GREAT WALL** and protect the students! 🏠🔒



Pelican Pete has swooped in and **stolen all the golf balls** from Pebble Beach Golf Club!



Hide & Go Seek Zeek has **outsmarted every animal** in Japan, disappearing without a trace!



Cameel & Kamel, the **singing camels**, have crushed the competition on *American Idol* with their **flawless harmonies!**



But that's not the worst of it—these tricksters are now heading **straight for your school!**



Their plan? ⚽ **Steal all the PE balls** 🖍️ **Hide all your school supplies** 🎵



And it gets worse... 🚨

You've just been informed that **96 different animals** are now on their way, **ready to cause chaos!**



Luckily for you—your school architects have designed a **powerful wall that grows at the same rate as these attackers!**



Your mission as the School Mathematician is to **calculate how many bricks are needed to build the wall** and protect your school!



On Your Own - Step A

On Your Own

✓ Complete this problems first

▶ Then, 👉 Click on the photo to watch the video and check your answer! 🎥 🐾

Follow these Steps:

- 1 Copy the first three sections of the GREAT WALL on your paper.
- 2 Based on the pattern, figure out the 4th section of the wall and draw that section next to the first three sections.

Growth Pattern
for your
GREAT WALL!

Photo by Kevin Lafferty

Photo by chevalgal

Photo by Duddy Wirawan

Section 1	Section 2	Section 3
1 square, 1 triangle	4 squares, 1 triangle	9 squares, 2 triangles

Each square or triangle counts as one block!



On Your Own - Step B






◆ On Your Own ◆

✓  Complete this problems first 

▶ Then,  Click on the photo to watch the video and check your answer!  

Follow these Steps:

- 1] Create a T-Chart  that shows the number of bricks needed to build the 7th section.
- 2] Solve for the **Iterative Function**, which is also the **Coefficient**.
- 3] Color the Coefficient  blue on each section that you drew.
- 4] Color the Constant  red on each section that you drew.



◆ 📝 **On Your Own** 💡 🎥 ◆

✅ ✍️ **Complete this problems first** 📝

▶️ Then, 👉 **Click on the photo** to watch the video and check your answer! 🎥 🐾

📝 **Follow these Steps:**

📝 **Use Your Strategy:**

📌 **Use your iterative function and your drawings to create a formula that will work for any section number.**

📌 **Illustrate your formula on your drawings.**

❓ **Test your formula against section 5, section 6 and section 7 to make sure that it agrees with your T-Chart 📊!**








On Your Own - Step D



◆ On Your Own ◆

  **Complete this problems first** 

 Then,  **Click on the photo** to watch the video and check your answer!  

 **New Discovery!** 
 Your **school scientists** have just discovered **more animals!** There are **96 different types of animals** attacking your school.

? How many bricks are needed to build the 96th section? 

