



### Book 1



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

**See Includes a Video Tutorial for Each Step of this Problem!** 

# 🐧 🦣 🐅 POISONOUS PENGUINS, BABBLING BABOONS, AND TERRIBLE TIGERS ARE ATTACKING!



## 🔥 <u>Will your math skills be enough to save your school?</u> 🔥

#### Build the GREAT WALL and protect the students! 🏫 🔐

Poisonous penguins waddle menacingly, squawking with their sharp beaks as they race toward your school.
Babbling baboons push and shove each other, talking nonsensically as they make their way to your school.
Terrible tigers growl deeply as they stalk towards your school.

But that's not the worst of it—more animals are coming! Your school is under attack from **39 different animals**!

**Lucky for you**—your school architects have designed a wall that grows at the same rate as these animals. Your job, as the School Mathematician, is to calculate how many bricks are needed to build your wall.

Solve these algebraic problems and your GREAT WALL will protect all the children within your school! 🏫 券

# 🎥 👀 Watch ME - Step A 👀 🎥

For this first problem, simply watch how the problem is solved. *Problem* Relax and focus on the strategies for solving this problem. Then, copy these strategies into your notes or onto your portfolio cover.

## 👀 📺 WATCH ME 👀 🎥

When the video is complete,  $copy \leq the$  problem into your **notebook** a or on a **piece of paper** for your parent or teacher.

#### **<u>Follow these Steps:</u>**

**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.





For this step, watch how the problem is solved. *Provide the strategies* before copying them into your notes or portfolio cover.



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#### 📝 Follow these Steps:

**1** Create a T-Chart **1** that shows the number of bricks needed to build the **7th section**.

2 Solve for the **Iterative Function**, which is also the **Coefficient**.

**Color the Coefficient blue** on each section that you drew.

**Color the Constant e** red on each section that you drew.





For this step, watch how the problem is solved. *Q* Relax and focus on the strategies before copying them into your notes or portfolio cover.



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#### 📝 Follow these Steps:

**Vise 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 1**!





For this step, watch how the problem is solved. *Provide the strategies* before copying them into your notes or portfolio cover.



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## 🚨 <u>New Discovery!</u> 🚨

Solution School scientists have just discovered more animals! There are **39 different types of animals attacking your school**.

**?** How many bricks are needed to build the **1** 39th section?

