🏯 THE GREAT WALL CHALLENGE! 🏯
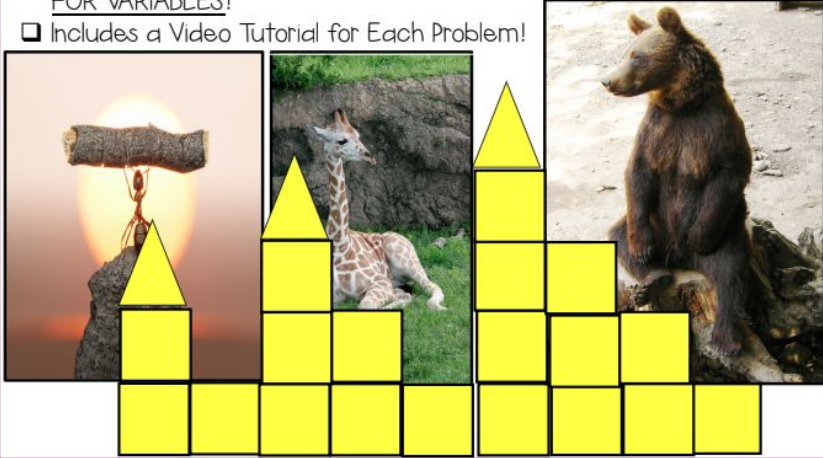
Book 10

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

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

🐜 🦒 🐻 AMOS, GINNY, & COMFORTABLE TED ARE ATTACKING! 🐜 🦒 🐻

🔥 **Will your math skills be enough to save your school?** 🔥

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

🏋️ 🐜 **Amos the Pumping-Iron Ant** may be friendly, but he **can't stop lifting heavy objects!** He's tossing **chairs, desks, and even lunch tables** over his head like they weigh nothing!

💝 🦒 **Ginny the Love-Sick Giraffe** is **sweet to the boys** but **mean to the girls!** She has a habit of **stealing hearts and breaking friendships** by **winning over every boy at school**!

🪑 🐻 **Comfortable Ted the Comfort-Seeking Grizzly** just wants a **cozy chair to relax in**—but at **547 pounds**, he **crushes every chair** he sits on!

❗ **But that's not the worst of it**—more animals are on their way!

🚨 **Breaking News!** 🚨
You've just been informed that **33 different animals** are **headed toward your school!**

🧱 **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! 🏫✨

◆ 📝✍️ **On Your Own** 💡 🎥 ◆

✅ ✍️ **Complete this problems first** ✏️📄

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

📝 **Follow these Steps:**

1️⃣ **Copy the first three sections** of the GREAT WALL on your paper.

2️⃣ **Based on the pattern**, figure out the **4th section** of the wall and **draw** that section next to the first three sections.

Photo by Andrey Pavlov

Photo by TK9805

Photo by Chad Littlejohn

Growth Pattern for your GREAT WALL!

Section 1   Section 2   Section 3

Each square or triangle counts as one block!

🔹 📝✏️ **On Your Own** 💡 🎥 🔹

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📝✏️ <u>**Follow these Steps:**</u>

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

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

3️⃣**Color the Coefficient** 🔵 **blue** on each section that you drew.

4️⃣**Color the Constant** 🔴 **red** on each section that you drew.

◆ 📝 **On Your Own** 💡 🎥 ◆

✅ ✍️ **Complete this problems first** ✏️ 📄

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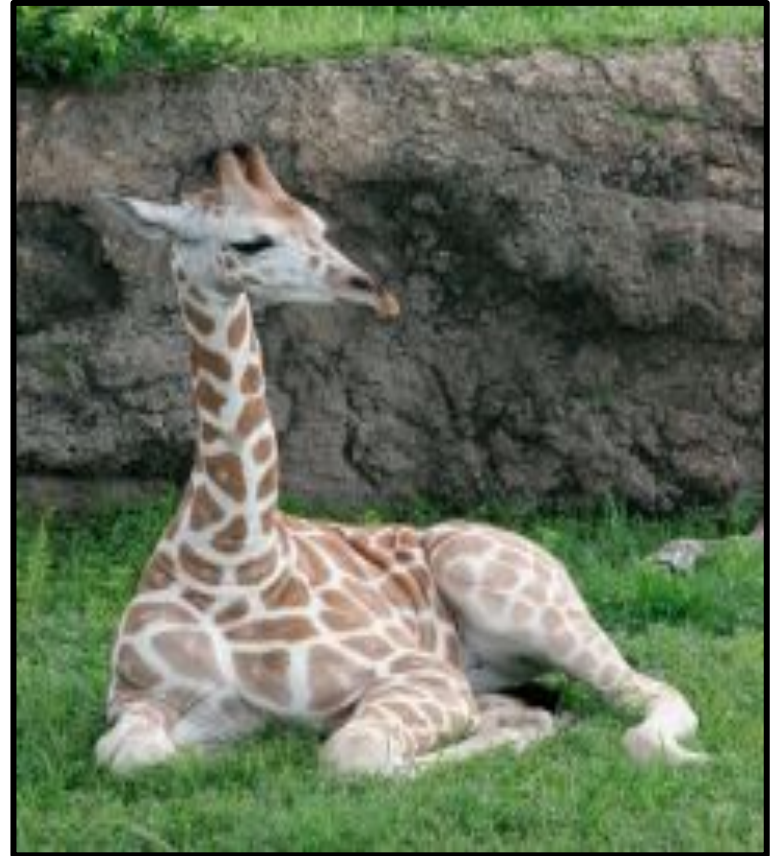
📝 **Follow these Steps:**

📝 **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** 💡 🎥 ◆

✅ ✍️ **Complete this problems first** ✏️ 📄

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

🚨 <u>**New Discovery!**</u> 🚨

🧑‍🔬 Your **school scientists** have just discovered **more animals!** There are **33 different types of animals attacking your school**.

❓ **How many bricks are needed to build the** 🏗️ **33rd section**?