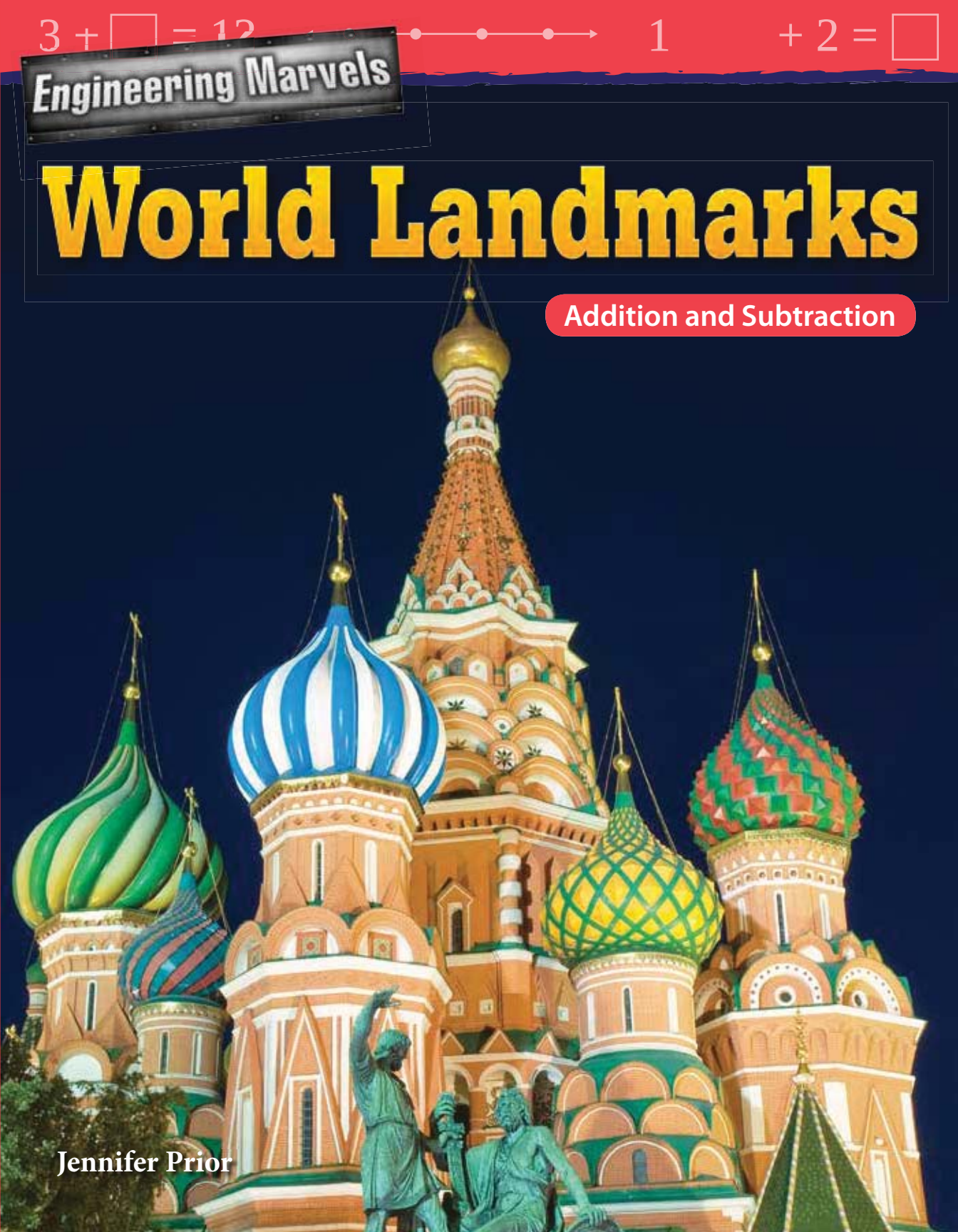
3 + □ = 12 1 + 2 = □

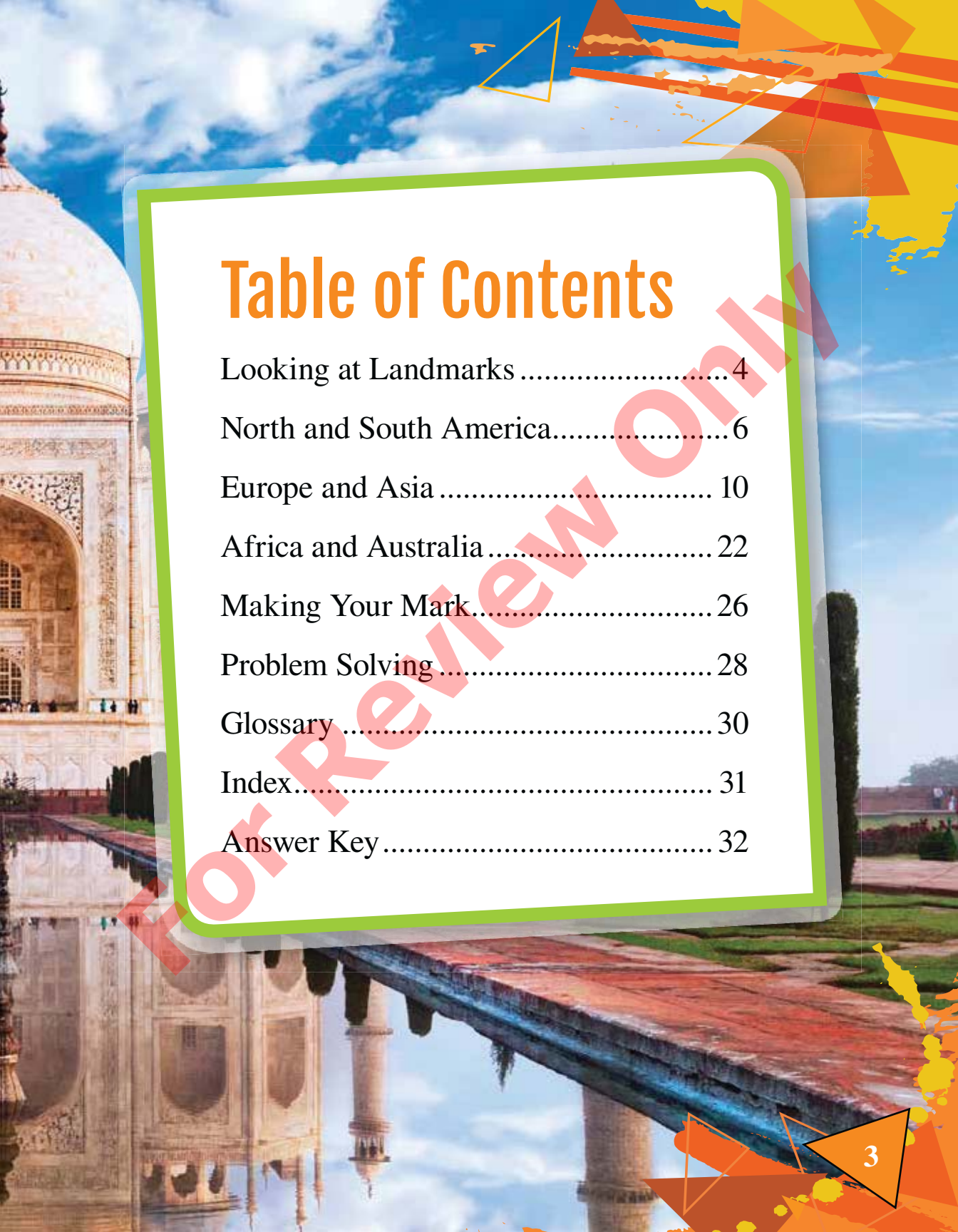
Engineering Marvels

World Landmarks

Addition and Subtraction



Jennifer Prior



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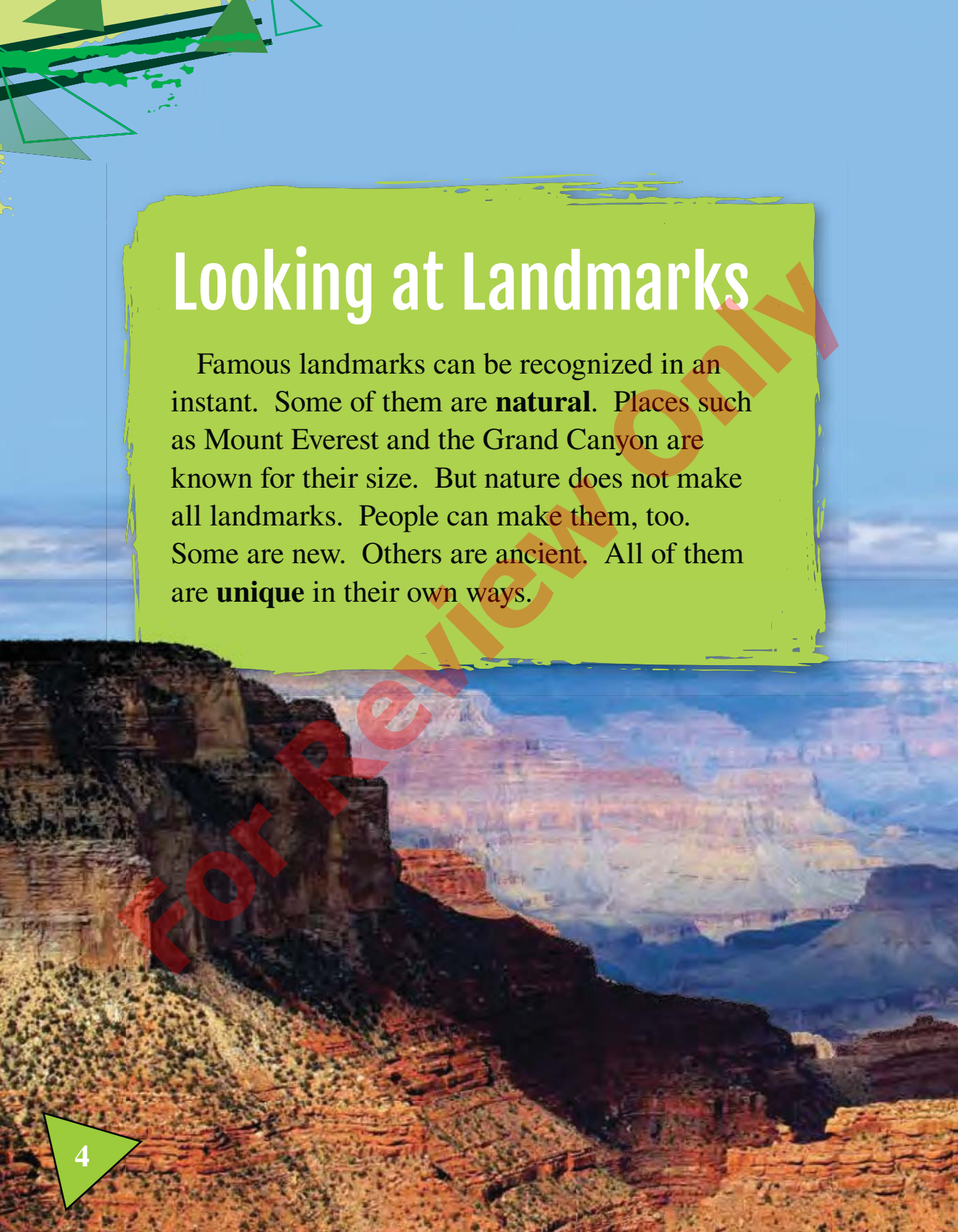
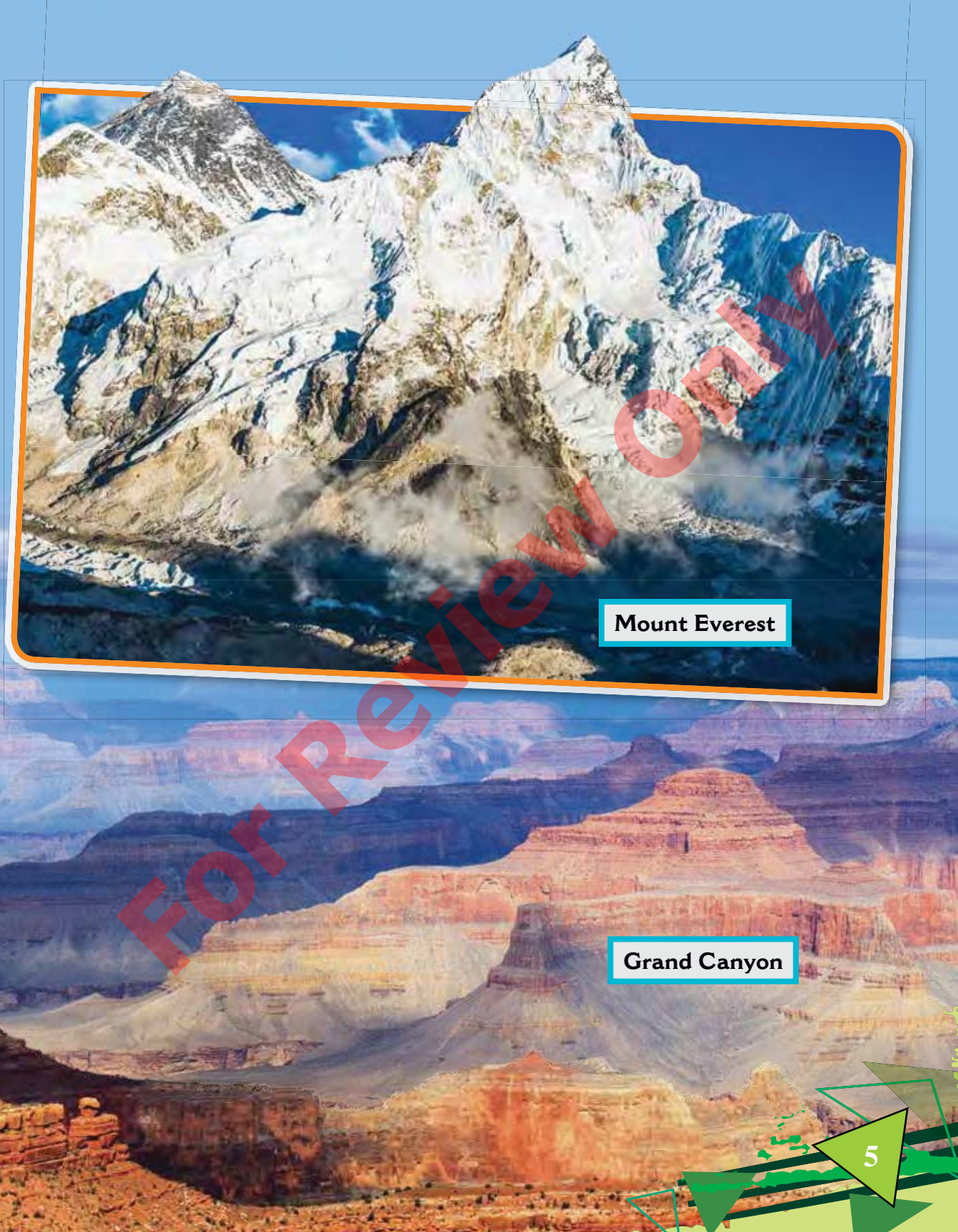
Looking at Landmarks

Famous landmarks can be recognized in an instant. Some of them are **natural**. Places such as Mount Everest and the Grand Canyon are known for their size. But nature does not make all landmarks. People can make them, too. Some are new. Others are ancient. All of them are **unique** in their own ways.





North and South America

North and South America have many landmarks. Some were built in recent years. Others have been around for much longer.

Gateway Arch

St. Louis, Missouri, is called the Gateway to the West. It is home to the Gateway Arch. The **monument** was built in 1965. It **honors** all the people who **expanded** the United States by moving to the West.

The Gateway Arch is made of steel. It is 630 feet (192 meters) tall. Guests who are **brave** enough can take a tram to the top. From there, they can see for miles. It is a great place to see the sights of the city.

United States of America

Let's Explore Math

Park rangers assist guests riding the tram at the Gateway Arch. Imagine that park rangers share some facts during your visit.

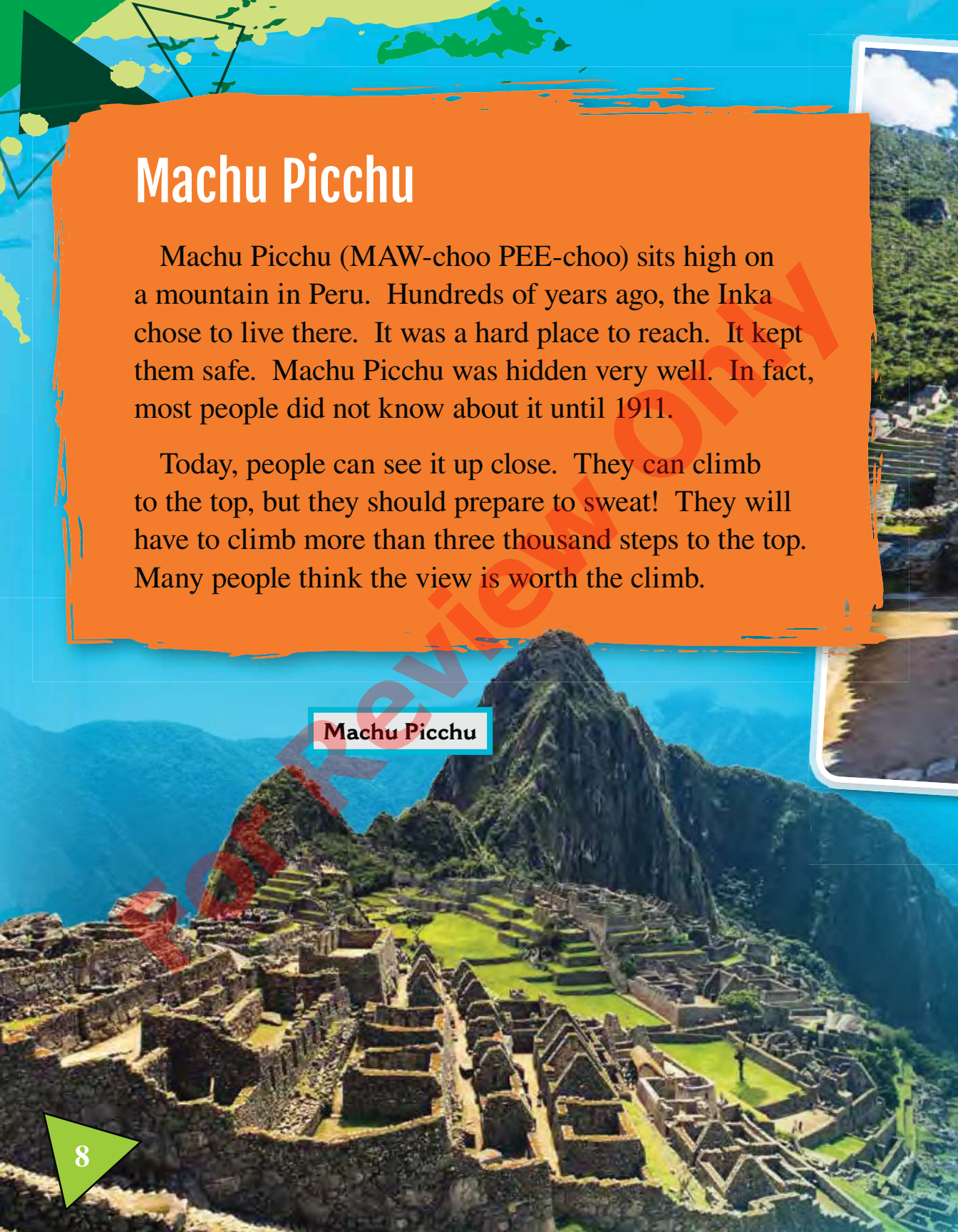
1. A park ranger says, "One tram can hold 240 visitors. But, it is not very crowded right now, since the tram just carried 100 fewer visitors." How many visitors were on the tram?
2. Another park ranger says, "This morning was very busy! Two trams were running. I helped 380 visitors. But the trams can hold 100 more people." How many visitors can both trams hold?
3. A third park ranger says, "Today, you can see for 20 miles at the top of the Arch. But on a clear day, it is possible to see 10 miles farther." How many miles away can you see on a clear day?

Gateway Arch

Machu Picchu

Machu Picchu (MAW-choo PEE-choo) sits high on a mountain in Peru. Hundreds of years ago, the Inka chose to live there. It was a hard place to reach. It kept them safe. Machu Picchu was hidden very well. In fact, most people did not know about it until 1911.

Today, people can see it up close. They can climb to the top, but they should prepare to sweat! They will have to climb more than three thousand steps to the top. Many people think the view is worth the climb.



Machu Picchu

There are more than 150 buildings at Machu Picchu.

LET'S EXPLORE MATH

Imagine that some tour groups are hiking Machu Picchu. There are groups of 25, 33, and 42 hikers. What math questions can you ask with this information?

Math Talk

1. How can you use estimation to prove that answers to addition and subtraction problems are reasonable?
2. What kinds of addition and subtraction problems can you solve mentally?
3. How can you be sure equations match addition and subtraction word problems?
4. Jorge solves 74 + 33 by adding 100 + 7. Paige solves by adding 70 + 30 + 4 + 3. How are the strategies alike and different? Are both correct? How do you know?
5. When adding three or four numbers, how do you decide what to do first?
6. Imagine you are building a new landmark. How can knowing how to add and subtract one-, two-, and three-digit numbers help?