Unit 8, Lesson 6

Revisit Volume

Let's solve problems about volume.

Warm-up

Estimation Exploration: Sugar Cubes

How many cubes are in the bowl?

Record an estimate that is:

too low	about right	too high

Activity 1

126 Cubes

A company packages 126 sugar cubes in each box. The box is a rectangular prism.

1. What are some possible ways to pack the cubes?

2. How would you pack the cubes? Explain or show your reasoning

Activity 2

Colossal Structures Old and New

1. The Great Pyramid of Giza was built in Egypt more than 4,000 years ago. Today, it is 137 meters tall. The base of the pyramid is a square. Each side of the base is 230 meters long. If the pyramid was shaped like a rectangular prism, what would the volume of the prism be?

2. The Empire State Building is in New York City. The base is 129 meters by 57 meters. The building is 381 meters tall. Estimate the volume of the Empire State Building.

3. Which do you think is larger, the Great Pyramid or the Empire State Building? Explain or show your reasoning.