

Math 6 - Act. 03: Cyclops

Summary

After reading *Odysseus and the Cyclops* students will complete variety of problem solving activities.

Main Core Tie

Mathematics Grade 6

[Strand: RATIOS AND PROPORTIONAL RELATIONSHIPS \(6.RP\) Standard 6.RP.3](#)

Materials

Story of *Odysseus and the Cyclops*
Rulers
Paper and Pencils
Butcher Paper
Scissors

Background for Teachers

The story of *Odysseus and the Cyclops* is found in Homer's book *Odysseus*. There are many different versions and translations of the Greek myth. In the story, *Odysseus* and his crew of sailors, looking for food and water, dock in the land of the Cyclops'. One Cyclops, Polyphemus, captures *Odysseus* and his men. Polyphemus takes the men home to eat. *Odysseus* get Polyphemus drunk and pokes out his eye. *Odysseus* and his men escape by clinging to the undersides of the sheep as they go out the door.

Intended Learning Outcomes

Communicate mathematically.

Instructional Procedures

Invitation to Learn

Read the story of *Odysseus and the Cyclops* to the students. Ask them how big they think the Cyclops was.

Instructional Procedures

Divide the students into groups. Instruct the students to come up with a group estimate of how tall Cyclops would have been. Have them explain their reasoning to others.

Next instruct the students to select a Cyclops' possession (comb, toothbrush, spoon, ring, pencil, etc.) and determine what the size of the object would be. Have them write a mathematical sentence representing their reasoning. They should then cut out their object from butcher paper and hang them on the wall.

The students will notice that the objects are of different sizes. Ask them why they think they are so different. Help them to determine that it depended on the size they chose for Cyclops and the size of the object they used for comparison.

Extensions

Possible Extensions / Adaptations

The students can determine the size of other Cyclops' possessions.

This same teaching format works well to help students determine sizes and distances in making space models. (If the Earth were the size of a basketball, what object would be the size of the moon?) In the book, *Cry Uncle* (chapter 12), the older boy divides their bedroom using the ratio of their ages.

Read and discuss this to the students. Have the students pretend they must share a room with an older brother or sister. Have them determine what fraction of their rooms they would have, using the older brother's methods from the story.

Homework & Family Connections

Assign students to find the ratio of their height to the height of their parents or a sibling. Using this ratio, have them determine what different sizes of clothing, beds, bedrooms, and other objects would be if made to this scale.

Assessment Plan

Evaluate the students' explanations of how they developed the math equation to determine the size of their objects.

Authors

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