

Warm Up

1. Image a can of soup that has a label. Draw a representation for the label if it were removed from the can.
2. Describe the shape of the label.
3. Describe the sides of a can of soup.
4. Describe the top and bottom or the base(s) of a can of soup.
5. Describe how to determine the height of a can of soup.
6. Describe the width of a can of soup.

Follow Up

Assignment

Use the Assignment for Lesson 9.1 in the Student Assignments book. See the Teacher's Resources and Assessments book for answers.

Skills Practice

Refer to the Skills Practice worksheet for Lesson 9.1 in the Student Assignments book for additional resources. See the Teacher's Resources and Assessments book for answers.

Assessment

See the Assessments provided in the Teacher's Resources and Assessments book for Chapter 9.

Check for Students' Understanding

A Cylindrical Fish Tank provides a 360° view!

- The height of the cylindrical fish tank is 30".
 - The length of the diameter of the base is 27.5".
 - One US gallon is equal to approximately 231 cubic inches.
1. Calculate the amount of water the tank will hold.

 2. Calculate the area of the viewing surface. You cannot view into the tank from the bottom.

Warm Up

1. What are some examples of objects that can be found inside your home that are shaped like a cone?
2. What are some examples of objects that can be found outside your home that are shaped like a cone?
3. What dimensions would you need to know if you wanted to determine how much frozen yogurt will fit into a waffle cone?

Follow Up

Assignment

Use the Assignment for Lesson 9.2 in the Student Assignments book. See the Teacher's Resources and Assessments book for answers.

Skills Practice

Refer to the Skills Practice worksheet for Lesson 9.2 in the Student Assignments book for additional resources. See the Teacher's Resources and Assessments book for answers.

Assessment

See the Assessments provided in the Teacher's Resources and Assessments book for Chapter 9.

Check for Students' Understanding

Cara asked her parents to make a piñata for her birthday party. A piñata is a brightly-colored papier-mâché, cardboard, or clay container, originating in Mexico, and filled with any combination of candy or small toys suspended from a height for blindfolded children to break with sticks. Her parents decided to make the piñata in the shape of her favorite dessert, an ice cream cone. They stuffed only the cone portion of the piñata.

- The height of the cone is 34".
 - The length of the diameter of the base is 24".
 - 144 square inches equal 1 square foot.
 - 1728 cubic inches equals 1 cubic foot.
1. Calculate the amount of space (cubic feet) in the cone that will be filled with goodies.

Warm Up

In June 2007, seven year old Jake Lonsway of Bay City, MI broke a world record building the world's largest plastic wrap ball. It took him 8 months to make the ball weighing 281.5 pounds and the circumference of the plastic wrap ball is 138 inches.

1. Calculate the radius and diameter of the world's largest ball of plastic wrap. Use 3.14 for pi.

9

2. Do you think a ball twice this size would weigh twice as much? Explain your reasoning.

Follow Up

Assignment

Use the Assignment for Lesson 9.3 in the Student Assignments book. See the Teacher's Resources and Assessments book for answers.

Skills Practice

Refer to the Skills Practice worksheet for Lesson 9.3 in the Student Assignments book for additional resources. See the Teacher's Resources and Assessments book for answers.

Assessment

See the Assessments provided in the Teacher's Resources and Assessments book for Chapter 9.

Check for Students' Understanding

1. The diameter of a small red beach ball is 8 inches.
Calculate the volume of the red beach ball to the nearest whole number. Use 3.14 for pi.

2. The diameter of a large blue beach ball is 16 inches.
Calculate the volume of the blue beach ball to the nearest whole number. Use 3.14 for pi.

3. Compare the length of the diameters of the two beach balls.

4. Compare the length of the radii of the two beach balls.

5. Explain how and why the volume of a sphere changes when the length of the radius is halved.

Warm Up

You have been asked to supply the ice cream for a birthday party. Assume each person attending the party will eat one ice cream cone. The local grocery store sells ice cream in rectangular half-gallon containers. Each container is 6.75 inches in length, 5 inches in height, and 3.5 inches in width. Your plan is to put two scoops of ice cream in each cone. Each scoop is a sphere with a radius of 1 inch.

1. What is the volume of one scoop of ice cream?
2. What is the volume of two scoops of ice cream?
3. What is the volume of ten scoops of ice cream?
4. What is the volume of one half-gallon of ice cream?
5. If 30 people attended the birthday party, how many half-gallons of ice cream should you buy?

Follow Up

Assignment

Use the Assignment for Lesson 9.4 in the Student Assignments book. See the Teacher's Resources and Assessments book for answers.

Skills Practice

Refer to the Skills Practice worksheet for Lesson 9.4 in the Student Assignments book for additional resources. See the Teacher's Resources and Assessments book for answers.

Assessment

See the Assessments provided in the Teacher's Resources and Assessments book for Chapter 9.

Check for Students' Understanding

Your neighbor, a contractor, has agreed to help you repave your driveway. He is requesting that you purchase the premixed cement at a local lumber yard. Premixed cement is sold by the cubic yard. Calculate the number of cubic yards needed to pave a rectangular driveway that is 55 feet in length, 15 feet in width, and 6 inches in depth or thickness.