

Chapter 7: Volume

Note

This package belongs to _____.

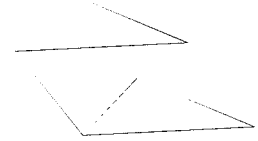
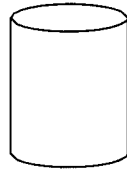
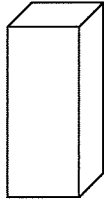
Chapter 7			
Math 8 A Dates	Math 8 B Dates	Lesson Topic	Homework
		Warm up: Get Ready	
		Lesson 7.1	Worksheet 7.1 Optional: Textbook P. 250 #12-15, 16, 18
		Lesson 7.2	Worksheet 7.2 Optional: Textbook P. 258 # 16-18, 20, 23, 24
Quiz 7.1 – 7.2			
		Lesson 7.3	Worksheet 7.3 Optional: Textbook P. 265 #12, 14, 15, 16, 18
		Lesson 7.4	Worksheet 7.4 Optional: Textbook p. 273 # 16, 17, 19, 20, 21
		Chapter 7 Review	Worksheet Review (Page 20-21) Chapter 7 Review Questions Textbook P. 276 # 1- 4, 5- 7, 9 - 13, 15 -20
Chapter 7 Test			

Date: _____

7.1 Notes: Understanding Volume

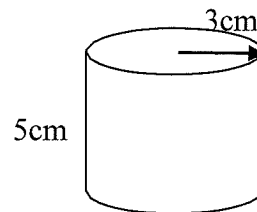
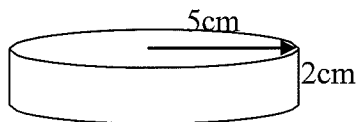
Review

Name each of the following shapes:



Draw an arrow to the side of the shape that could be the base.

Sherman wants to package his Gourmet Spinach Paste in a cylindrical container. Which container do you think might hold more Sauce?



Volume is the _____

Using cm cubes:

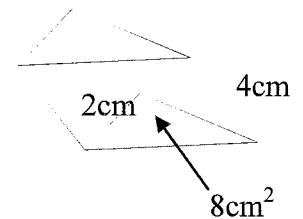
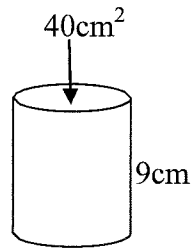
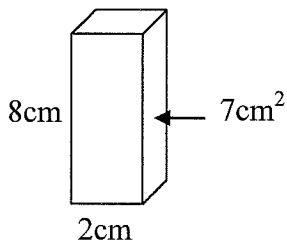
If you make a rectangular prism with a base that measures 3×4 cm, what is the volume if the height is 2cm?

If you make a rectangular prism with a base that measures 2×3 cm, what is the volume if the height is 4cm?

What is the difference between a $2 \times 3 \times 4$ rectangular prism and a $3 \times 4 \times 2$ rectangular prism?

Summary

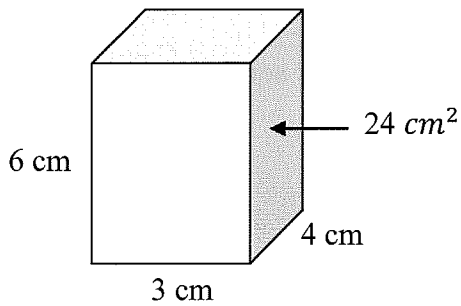
What is the volume of the following shapes:



Velma has a rectangular fish tank that has a base of 600 cm^2 and contains a depth of 16 cm. She adds a decorative castle and finds that the water rises 0.6 cm. What is the new volume of water in the tank? What is the volume of the castle?

Date: _____

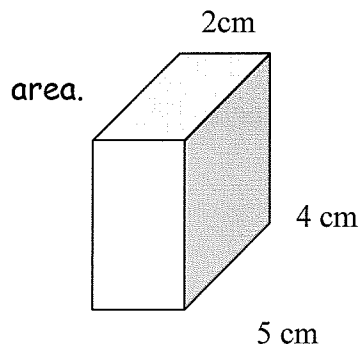
7.2: Volume of a Prism



Jodi found the volume of the rectangular prism shown. What were her calculations?

Jodi had to calculate the area of the base. What were her steps?

You can find the volume of a rectangular prism if you know _____,
_____ and _____.

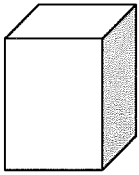


Choose one side to be the base. Find its

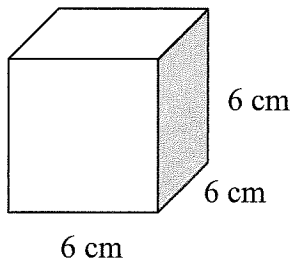
Find the volume of this rectangular prism.

The volume can also be found with one step:

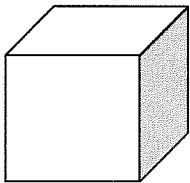
Summary:



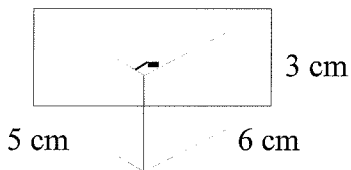
What happens if all the sides of a rectangular prism are the same?



Summary:

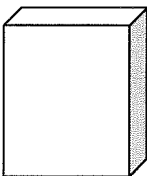
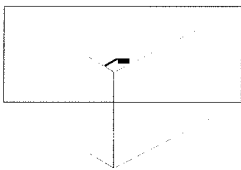


How does the volume of a triangular prism compare to a rectangular prism?



Find the volume of the triangular prism shown.

Summary:

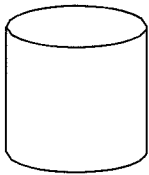


Fried Banana Breakfast cereal comes in boxes that measure 20cm wide, 30cm tall, and 5cm thick. If they only come seven-eighths full, what volume of cereal does one box contain?

Date: _____

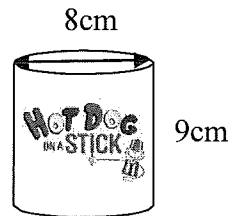
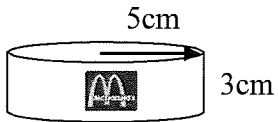
7.3 Notes: Volume of a Cylinder

The volume of a _____ can be found using a modified version of the volume formula:

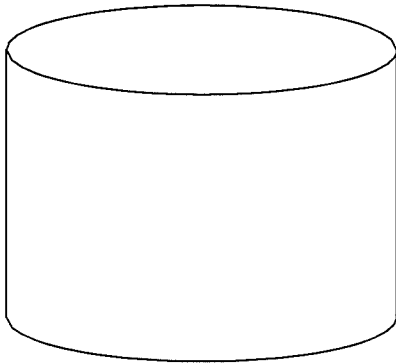


$$\text{Volume} = (\text{Area of the } \underline{\hspace{2cm}}) \times \text{height}$$

Find the volume of each cylinder:



Ricky buys a can of Motor Oil at the track. It is 15cm high and has a diameter of 12 cm. How much Motor Oil could fit in the can?



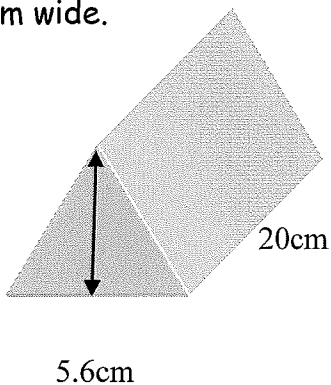
Stevie buys Axe in a cylindrical container. It has a 3cm radius and is 8cm tall. However, it is only $\frac{5}{8}$ full. How much Axe is really in the container?

Johnny wants to put 300 cm^3 of Anti-Fungal cream in a cylindrical container. He wants the base to have a radius of 4 cm. How tall would the container have to be?

Date: _____

7.4 Notes Solving Problems Involving Prisms and Cylinders

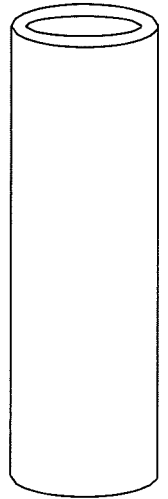
Toblerone Chocolate bars are sold in packages that are triangular prisms. Each bar measures 5.6cm along its base, is 5cm high and 20 cm long. Joe is going to stack the bars to make a triangular prism, but it must fit on a countertop that is only 50cm wide.



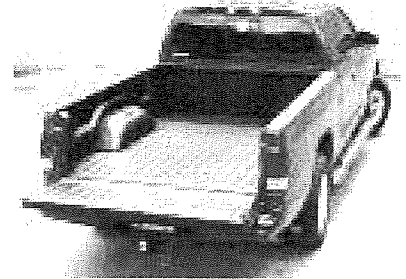
How many bars will fit in the shape?

What is the total volume of the display?

A section of pipe has an inner diameter of 12cm and an outer diameter of 15cm.
What is the volume of a pipe that measures 5m long?



Fred's truck has a bed that measures 2.5m x 1.2m x 2m.
He has 105 m³ of garbage he needs to haul to the dump.
If each trip costs him \$7, how much will it cost him to haul
away all of his garbage?



Simon has been hired to transport a canister of radioactive material. The canister is cylinder with a diameter of 5cm and a height of 15cm. He plans on putting it inside a rectangular box that measure 8cm on each side and 20cm high, and then filling the rest of the box with insulating foam to protect himself from the radioactivity. What volume of foam will he need?

Simon's friend, Carl, has the brilliant idea of repositioning the canister within the box. He says to Simon that it will allow him to have more foam protection. Is he correct?

