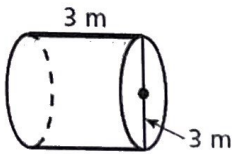


Name: Keyz

Chapter 8 Quiz Study Guide

1. Find the volume to the nearest m^3 .



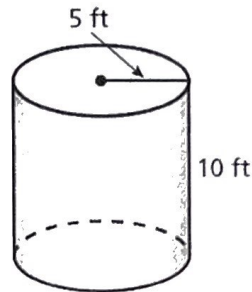
Show your work.

radius = 1.5 height = 3

$$V = \pi r^2 h$$
$$= \pi (1.5)^2 (3)$$

volume = 21 m^3 (round to the nearest whole)

2. Find the volume to the nearest ft^3 .



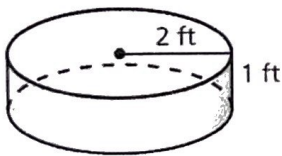
Show your work.

radius = 5 height = 10

$$V = \pi r^2 h$$
$$= \pi (5^2) (10)$$

volume = 785 ft^3 (round to the nearest whole)

3. Find the volume to the nearest ft^3 .



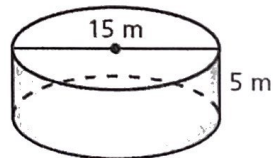
Show your work.

radius = 2 height = 1

$$V = \pi r^2 h$$
$$= \pi (2^2) (1)$$

volume = 13 ft^3 (round to the nearest whole)

4. Find the volume to the nearest m^3 .



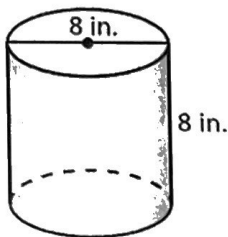
Show your work.

radius = 7.5 height = 5

$$V = \pi r^2 h$$
$$= \pi (7.5^2) (5)$$

volume = 884 m^3 (round to the nearest whole)

5. Find the volume to the nearest in.³.



Show your work.

radius = 4 height = 8

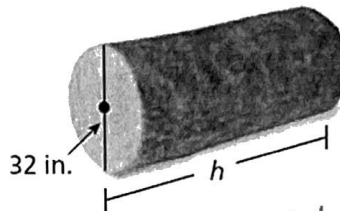
$$V = \pi r^2 h$$

$$= \pi (4^2)(8)$$

volume = 402 in.³ (round to the nearest whole)

6. Find the height to the nearest whole inch.

Volume = $10,000\pi$ in.³



Show your work.

radius = 16

$$V = \pi r^2 h$$

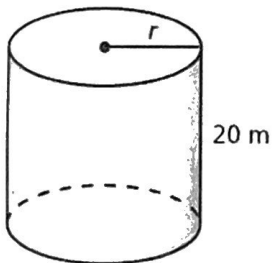
$$10,000\pi = \pi (16^2) h$$

$$h = \frac{10,000}{256}$$

height = 39 in. (round to the nearest whole)

7. Find the radius to the nearest whole meter.

Volume = 7599 m^3



Show your work.

height = _____

$$V = \pi r^2 h$$

$$7599 = \pi r^2 (20)$$

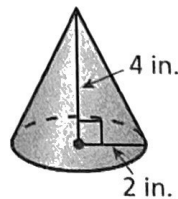
$$r^2 = \frac{7599}{20\pi}$$

$$r = \sqrt{\frac{7599}{20\pi}}$$

radius = 11 m. (round to the nearest whole)

8. Find the volume of the cone.

(you see how it has switched from cylinder to cone, right?)



Show your work.

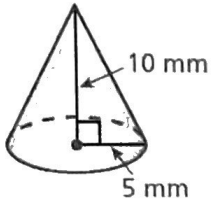
radius = 2 height = 4

$$V = \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \pi (2^2)(4)$$

volume = 16.8 in.³ (round to the nearest tenth)

9. Find the volume of the cone.



Show your work.

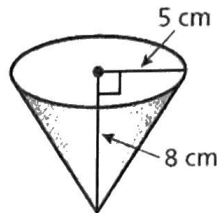
radius = 5 height = 10

$$V = \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \cdot \pi (5^2)(10)$$

volume = 261.8 mm³ (round to the nearest tenth)

10. Find the volume of the cone.



Show your work.

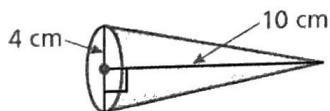
radius = 5 height = 8

$$V = \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \cdot \pi \cdot 5^2 (8)$$

volume = 209.4 cm³ (round to the nearest tenth)

11. Find the volume of the cone.



Show your work.

radius = 2 height = 10

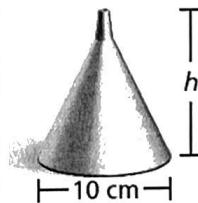
$$V = \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \pi (2^2)(10)$$

volume = 41.9 cm³ (round to the nearest tenth)

12. Find the height. Show your work.

Volume = 225 cm³



radius = 5

$$V = \frac{1}{3} \pi r^2 h$$

$$225 = \frac{1}{3} (\pi) (5^2) h$$

$$675 = 25 \pi h$$

$$h = \frac{675}{25 \pi}$$

height = 8.6 cm (round to the nearest tenth)

13. A tank on a road roller is filled with water to make the roller heavy. The tank is a cylinder that has a height of 6 feet and a radius of 2 feet.



Find the volume of the roller. Show your work.

radius = 2 height = 6

$$V = \pi r^2 h$$

$$= \pi (2^2)(6)$$

volume = 75.4 ft³

One cubic foot of water weighs 62.5 pounds.

Find the weight of the water in the tank.

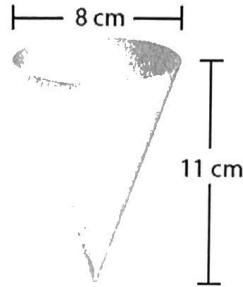
$$75.4 \times 62.5$$

4,712 pounds of water

14. You have 10 gallons of lemonade to sell.
(1 gal = 3785 cm³)

10 gallons = 37850 cm³

Find the volume of one cone-shaped paper cup.



radius = 4 height = 11

$$V = \frac{1}{3} \pi r^2 h$$

$$= \frac{1}{3} \pi (4^2)(11)$$

volume = 184.3

How many paper cups will you need for all the lemonade?

$$37850 \div 184.3$$

206 paper cups

If cups are sold in packages of 50, how many packages should you buy?

206 is so close to 200 I'm tempted to buy only 4, but 206 is more than 200, also cups fall on the ground

5 packages \ddot{u}

How many cups from the packages you bought will be left over if you sell 80% of the lemonade?

80% of the lemonade will need 80% of the 206 cups needed

85 left over cups

$$0.8 \times 206 =$$

$$5 \times 50 = 165 \quad 165 \text{ cups}$$

what am = 85

I supposed to do with 85 cups? keep the receipt and take one package back

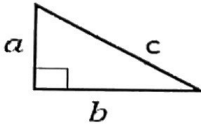
Mathematics Reference Sheets

Grades 5 -8

Assessment Reference Sheet

Grade 8

1 inch = 2.54 centimeters	1 kilometer = 0.62 mile	1 cup = 8 fluid ounces
1 meter = 39.37 inches	1 pound = 16 ounces	1 pint = 2 cups
1 mile = 5280 feet	1 pound = 0.454 kilograms	1 quart = 2 pints
1 mile = 1760 yards	1 kilogram = 2.2 pounds	1 gallon = 4 quarts
1 mile = 1.609 kilometers	1 ton = 2000 pounds	1 gallon = 3.785 liters
		1 liter = 0.264 gallons
		1 liter = 1000 cubic centimeters

Triangle	$A = \frac{1}{2}bh$
Parallelogram	$A = bh$
Circle	$A = \pi r^2$
Circle	$C = \pi d$ or $C = 2\pi r$
General Prisms	$V = Bh$
Cylinder	$V = \pi r^2 h$
Sphere	$V = \frac{4}{3}\pi r^3$
Cone	$V = \frac{1}{3}\pi r^2 h$
Pythagorean Theorem	 $a^2 + b^2 = c^2$