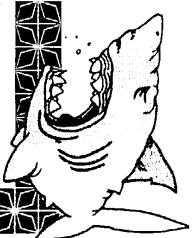
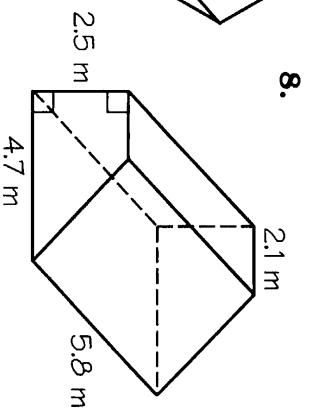
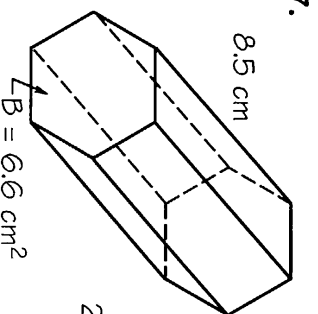
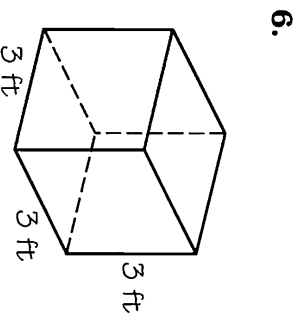
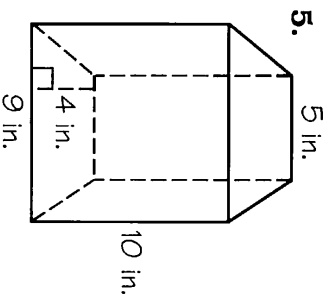
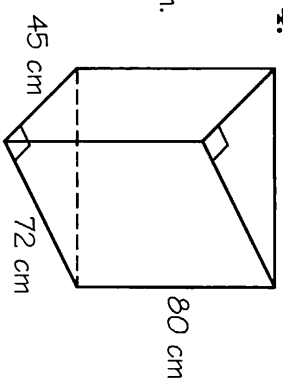
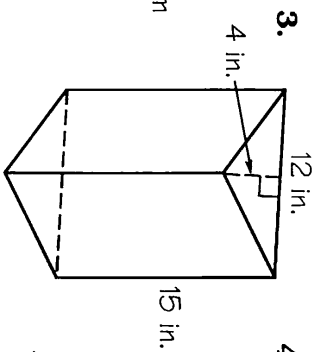
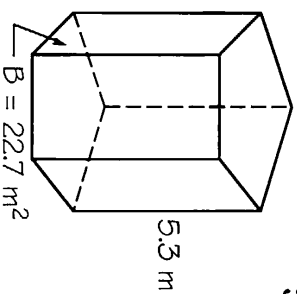
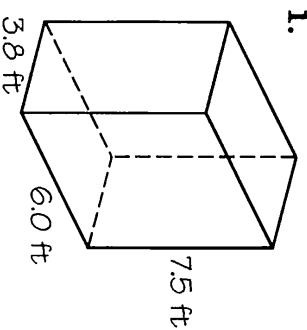


# Why Don't Sharks Eat Clowns?



Cross out the letters above each correct answer (some answers are rounded). When you finish, write the remaining letters in the spaces at the bottom of the page.

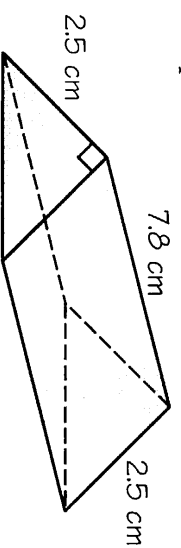
Find the volume of the prism.



Solve.

9. Bob's bathtub is 5.0 ft long and 2.2 ft wide. Bob fills the tub to a depth of 0.8 ft. A cubic foot of water is about 7.48 gallons. How many gallons are used to fill the tub?

11. The optical prism shown below is made of glass having a density of 4.3 grams per cubic centimeter. Find the mass of the prism.



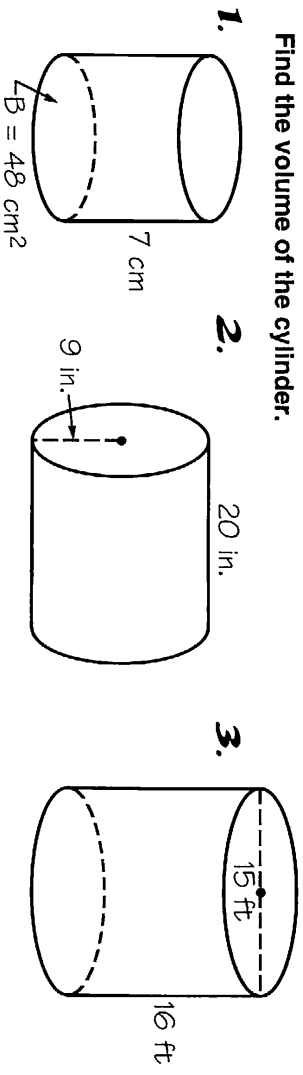
10. An unsharpened pencil is in the shape of a hexagonal prism with base area of  $54 \text{ mm}^2$  and length of 20 cm. Find the volume in cubic millimeters. (1 cm = 10 mm)

<b>MA</b>	<b>BO</b>	<b>TH</b>	<b>AT</b>	<b>PR</b>	<b>EY</b>
280 in. <sup>3</sup>	10,800 mm <sup>3</sup>	52.5 m <sup>3</sup>	56.1 cm <sup>3</sup>	360 in. <sup>3</sup>	183 ft <sup>3</sup>
<b>TA</b>	<b>KE</b>	<b>PE</b>	<b>ST</b>	<b>OP</b>	<b>EF</b>
11,300 mm <sup>3</sup>	104.8 g	171 ft <sup>3</sup>	107.5 g	65.8 gal	132,400 cm <sup>3</sup>
<b>ST</b>	<b>UN</b>	<b>DO</b>	<b>BO</b>	<b>NY</b>	<b>TT</b>
27 ft <sup>3</sup>	325 in. <sup>3</sup>	129,600 cm <sup>3</sup>	49.3 m <sup>3</sup>	72.4 gal	120.3 m <sup>3</sup>

# What Kind of Music Do Astronauts Like?

Cross out the letter next to each correct answer (some answers are rounded).  
Use 3.14 for  $\pi$ . When you finish, the answer to the title question will remain.

Find the volume of the cylinder.

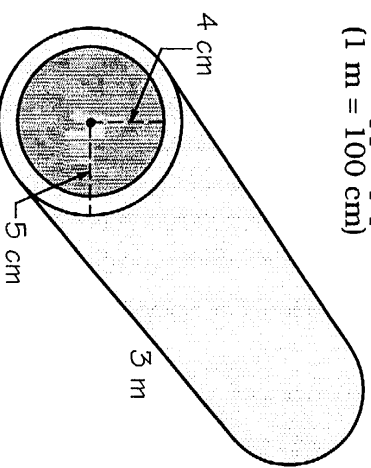
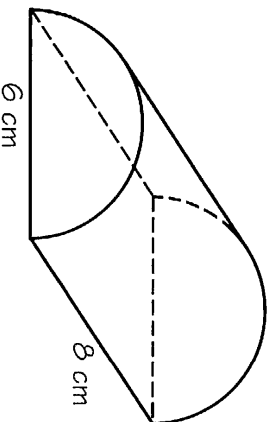


<b>F</b>	452.2 mL
<b>S</b>	3.4 m <sup>3</sup>
<b>R</b>	2826 ft <sup>3</sup>
<b>A</b>	857 in. <sup>3</sup>
<b>B</b>	2
<b>D</b>	516.7 cm <sup>3</sup>
<b>Z</b>	25.8 oz
<b>D</b>	475.3 mL
<b>F</b>	395.6 g
<b>I</b>	336 cm <sup>3</sup>
<b>L</b>	6
<b>D</b>	27.0 oz
<b>P</b>	388.5 g
<b>O</b>	4.0 m <sup>3</sup>
<b>L</b>	8478 cm <sup>3</sup>
<b>A</b>	2950 ft <sup>3</sup>
<b>G</b>	5086.8 in. <sup>3</sup>
<b>Z</b>	7955 cm <sup>3</sup>
<b>O</b>	4
<b>S</b>	942 in. <sup>3</sup>

- Find the volume of the cylinder given the radius ( $r$ ) or diameter ( $d$ ) and height ( $h$ ).
4.  $r = 10$  in.                      5.  $r = 4.4$  cm  
 $h = 3$  in.                               $h = 8.5$  cm
6.  $d = 2.6$  m  
 $h = 0.75$  m

Solve.

7. A mug in the shape of a cylinder has a base with a radius of 4 cm. How many milliliters of liquid does it hold if filled to a height of 9 cm. (1 cm<sup>3</sup> holds 1 mL)
8. A peanut butter jar has a height of 5.9 in. and diameter of 3.6 in. One cubic inch holds 0.45 oz of peanut butter. How many ounces will fit in the jar?
9. Jo was comparing two cylinders that both had a radius of 5 cm. The first had a height of 10 cm, and the other a height of 20 cm. How many times greater was the volume of the larger cylinder?
10. Bo was comparing two cylinders that both had a height of 5 cm. The first had a radius of 10 cm, and the other a radius of 20 cm. How many times greater was the volume of the larger cylinder?
11. The paperweight shown below is made of glass with a density of 3.5 grams per cubic centimeter. How much does the paperweight weigh?
12. Find the volume of copper in this copper pipe.  
(1 m = 100 cm)

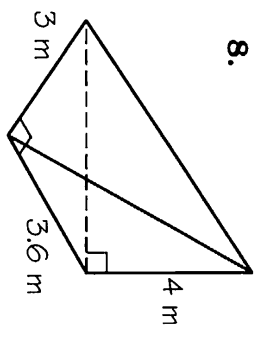
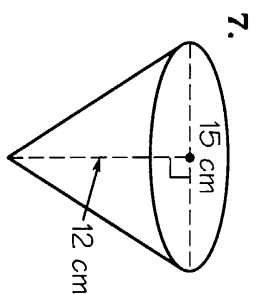
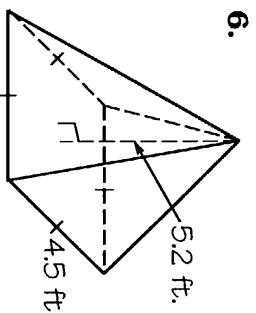
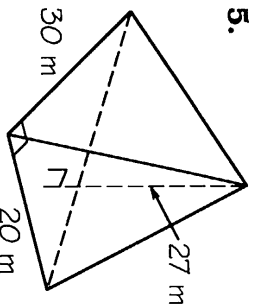
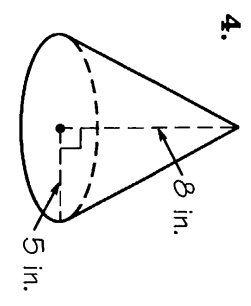
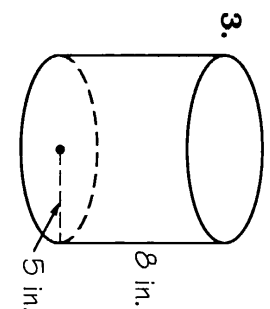
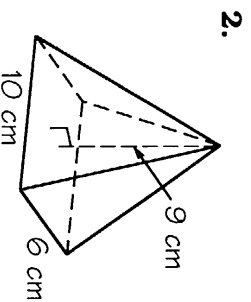
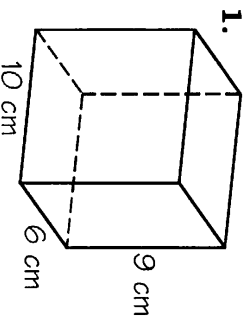


# What Do You Call a Monster With a Car On His Head?

210 cm <sup>3</sup>	392.5 g	3150 m <sup>3</sup>	144 in. <sup>3</sup>
174.5 mL	706.5 cm <sup>3</sup>	35.1 ft <sup>3</sup>	183 in. <sup>3</sup>
712 in. <sup>3</sup>	408.9 g	166.7 mL	\$1.50
628 in. <sup>3</sup>	9 m <sup>3</sup>	\$2.00	98 cm <sup>3</sup>
\$1.00	209.3 in. <sup>3</sup>	180 cm <sup>3</sup>	
688.3 cm <sup>3</sup>	47.2 ft <sup>3</sup>	7.2 m <sup>3</sup>	2700 m <sup>3</sup>

Shade in the area containing each correct answer (some answers are rounded). Use 3.14 for  $\pi$ .

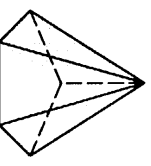
Find the volume of each figure.



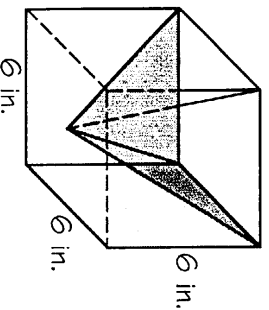
Solve.

9. An ice cream cone has a diameter of 7 cm and a height of 13 cm. How many milliliters of melted ice cream can it hold? (1 cm<sup>3</sup> holds 1 mL)

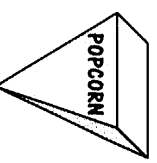
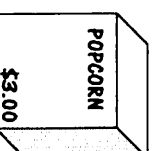
10. The steel machine part at the right has a base area of 22.5 cm<sup>2</sup> and a height of 5.8 cm. The steel weighs 9.4 grams per cubic centimeter. How much does the part weigh?



11. A pyramid fits snugly inside a 6-in. cube as shown. What is the volume of the shaded region (inside the cube but outside the pyramid)?



12. Two popcorn boxes are shown below. The boxes have congruent openings and equal heights. If the larger box of popcorn sells for \$3.00, what is a fair price for the smaller box?



# Why Are Mathematicians Like Airlines?

Choose the correct answer for each exercise and circle the letter next to it (most answers are rounded). Write the upper case letter in the box containing the lower case letter. Use 3.14 for  $\pi$ .

Find the volume of each ball.

answers

1.  $r = 1.5$  in.

2.  $r = 12$  cm

3.  $d = 2.28$  in.

**K • A** 5274.8  $\text{cm}^3$

**m • N** 28,900 gal

**p • S** 332.9  $\text{in.}^3$

**o • T** 113,040  $\text{cm}^3$

**n • O** 7234.6  $\text{cm}^3$

**g • V** 14.8 lb

**d • Y** 103.0  $\text{in.}^3$

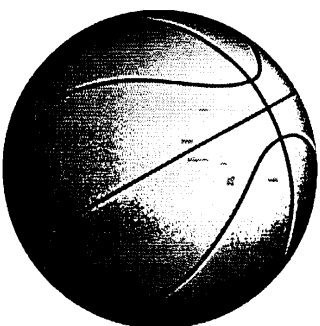
**i • O** 678,240  $\text{cm}^3$

**f • U** 4846.6  $\text{cm}^3$

**g • S** 904,320  $\text{cm}^3$

**d • R** 694 ml

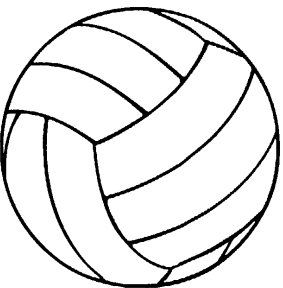
**h • E** 31,400 gal



6.  $r = 4.3$  in.



4.  $d = 21$  cm



5.  $d = 1.68$  in.



Solve.

7. A spherical water storage tank has a radius of 10 ft. A cubic foot of water is about 7.5 gallons. How many gallons of water will the tank hold?

8. How many milliliters of soup will this hemispherical bowl hold? (1  $\text{cm}^3$  holds 1 ml)

**b • R** 298.5  $\text{in.}^3$

**c • E** 14.1  $\text{in.}^3$

**l • S** 6

**k • I** 2.48  $\text{in.}^3$

**j • F** 105.2  $\text{in.}^3$

**m • L** 15.5 lb

**a • T** 6.2  $\text{in.}^3$

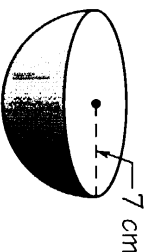
**j • P** 8

**p • D** 4.75  $\text{in.}^3$

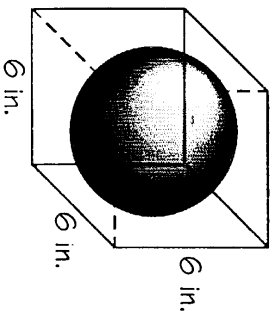
**b • H** 718 ml

**a • C** 13.5  $\text{in.}^3$

9. A bowling ball has a diameter of 8.4 in. It is made of plastic that weighs 0.05 lb/ $\text{in.}^3$ . Find the weight of the bowling ball.



10. A sphere fits snugly inside a 6-in. cube as shown. What is the volume of the region inside the cube but outside the sphere?



11. Rimshot was comparing two spheres, one with a 30-cm radius and the other with a 60-cm radius.

a. Find the volume of the smaller sphere.

b. Find the volume of the larger sphere.

c. How many times greater is the volume of the larger sphere?

