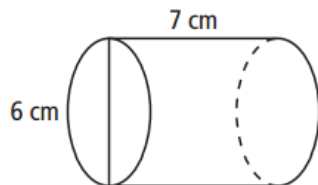


1. A set of points in space equidistant from a given point is called a(n) ? .

2. A(n) ? is a polyhedron in which one face can be any polygon and the lateral faces are triangles that meet at a common vertex.

3. What is the lateral area of the cylinder?



4. A cube has twelve ?.

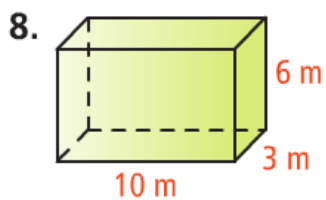
Find the volume of each square pyramid.

5. base edges 10 cm,
height 6 cm

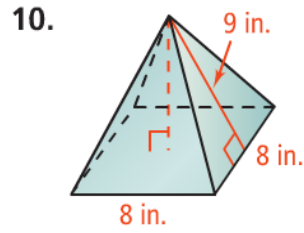
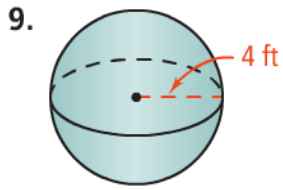
Use Euler's Formula to find the missing number.

6. $F = 5, V = 5, E = \blacksquare$ 7. $F = 6, V = \blacksquare, E = 12$

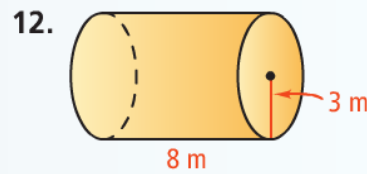
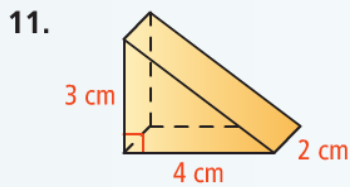
Find the volume of each rectangular prism.



Find the volume and surface area of each figure to the nearest tenth.

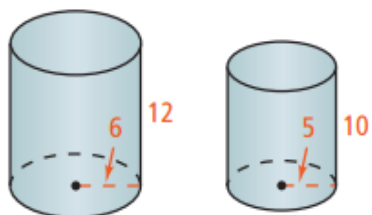


Find the surface area of each figure. Leave your answers in terms of π where applicable.



13. The ratio of the radius of the larger cylinder to the radius of the smaller cylinder

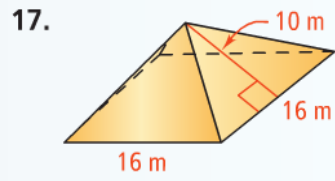
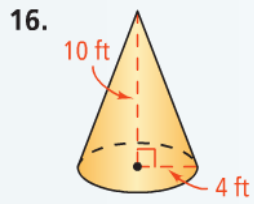
is $\frac{\square}{\square}$.



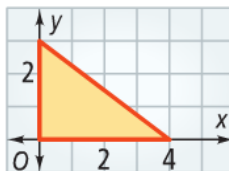
14. The scale factor is \square .

15. A square prism with base edges 2 in. has surface area 32 in.². What is its height?

Find the surface area of each figure. Round your answers to the nearest tenth.



18. **Visualization** The triangle is revolved completely about the y -axis.



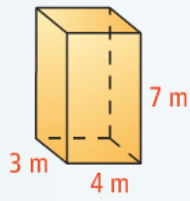
- a. Describe the solid of revolution that is formed.
- b. Find its lateral area and volume in terms of π .

19. **Open-Ended** Draw two different solids that have volume 100 in.^3 . Label the dimensions of each solid.

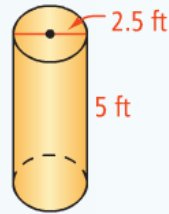
20. Find the formula for the base area of a prism in terms of surface area and lateral area.

Find the volume of each figure. If necessary, round to the nearest tenth.

21.

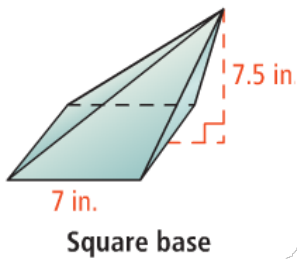


22.



Find the volume to the nearest whole number.

23.

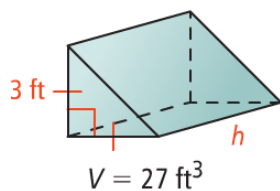


A sphere has the volume given. Find its surface area to the nearest whole number.

24. $V = 3000 \text{ m}^3$

Find the height of each figure with the given volume.

25.



26. Sports A can of tennis balls has a diameter of 3 in. and a height of 8 in. Find the volume of the can to the nearest cubic inch.

27. The volume of a spherical balloon with radius 3.1 cm is about 125 cm^3 . Estimate the volume of a similar balloon with radius 6.2 cm.

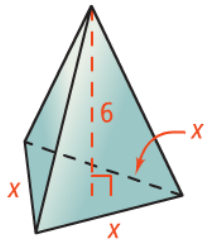
28. Is $V = \frac{1}{3}Bh$ the volume formula for both a pyramid and a cone?

Got It? A marble paperweight shaped like a pyramid weighs 0.15 lb. How much does a similarly shaped marble paperweight weigh if each dimension is three times as large?

29. The paperweight that is three times as large weighs lb.

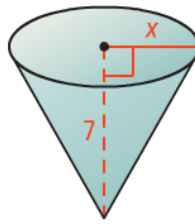
Algebra Find the value of the variable in each figure. Leave answers in simplest radical form. The diagrams are not to scale.

30.



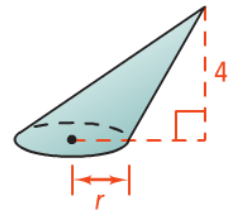
Volume = $18\sqrt{3}$

31.



Volume = 21π

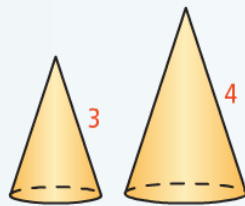
32.



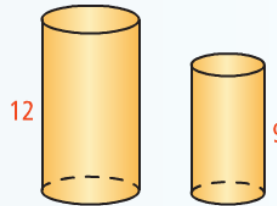
Volume = 24π

For each pair of similar solids, find the ratio of the volume of the first figure to the volume of the second.

33.



34.



The length of a side (s) of the base, slant height (ℓ), height (h), lateral area (L.A.), and surface area (S.A.) are measurements of a square pyramid. Given two of the measurements, find the other three to the nearest tenth.

35. $h = 8$ m, $\ell = 10$ m

36. L.A. = 118 cm², S.A. = 182 cm²