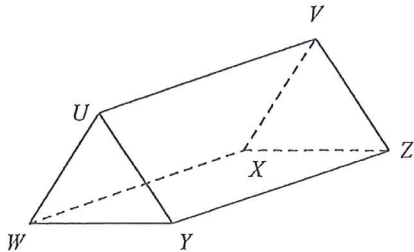


Unit 13: Surface Area and Volume Test REVIEW

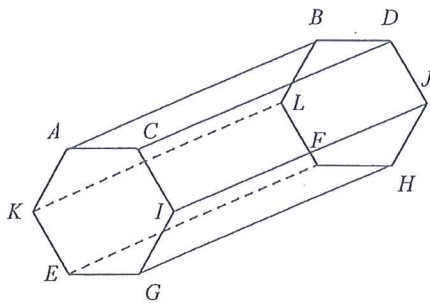
Identify the solid.

1.



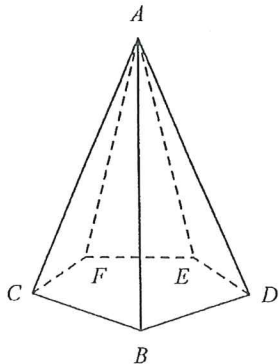
- a. rectangular prism
- b. rectangular pyramid
- c. triangular prism
- d. triangular pyramid

2.



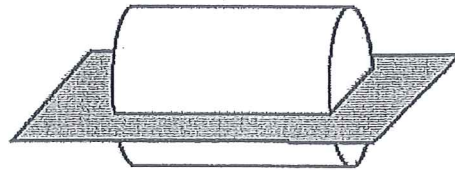
- a. cylinder
- b. hexagonal prism
- c. pentagonal prism
- d. hexagonal pyramid

3.



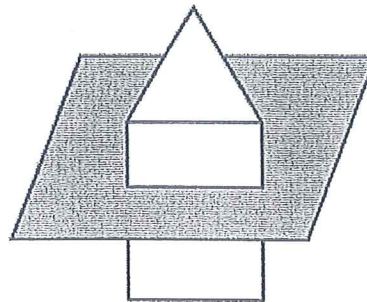
- a. cone
- b. pentagonal pyramid
- c. pentagonal prism
- d. hexagonal pyramid

4. Find the shape resulting from the cross-section of the cylinder.



- a. rectangle
- b. square
- c. circle
- d. ellipse

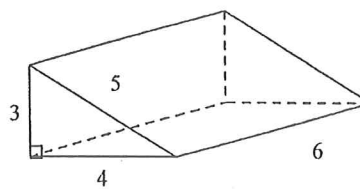
5. Find the shape resulting from the cross-section of the triangular prism.



- a. triangle
- b. rectangle
- c. square
- d. ellipse

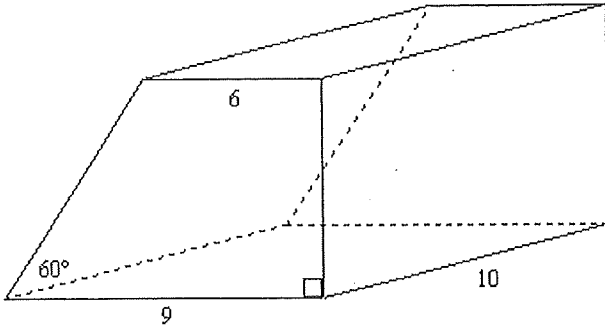
Find the surface area and volume of the solid.

6.

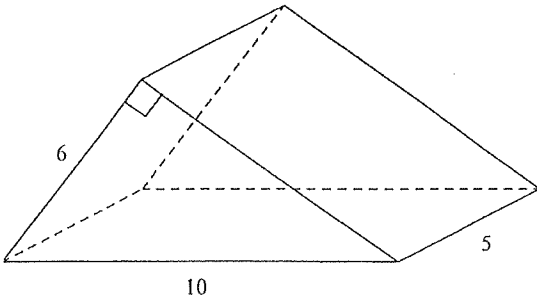


Find the surface area and volume of each prism.

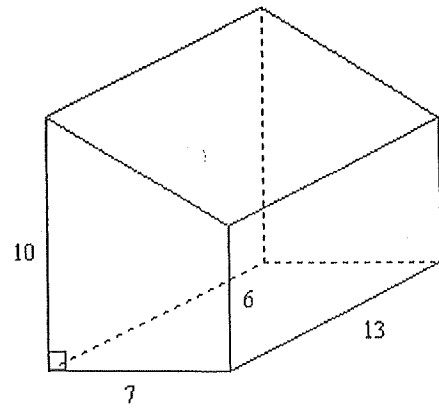
7.



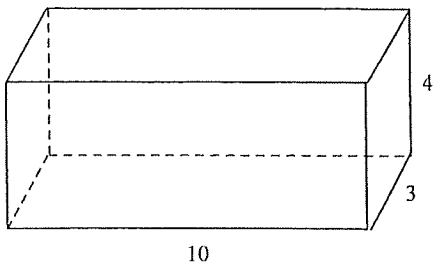
8.



10.

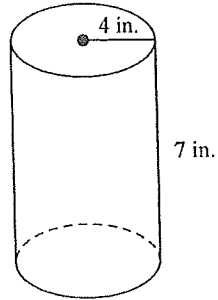


9.



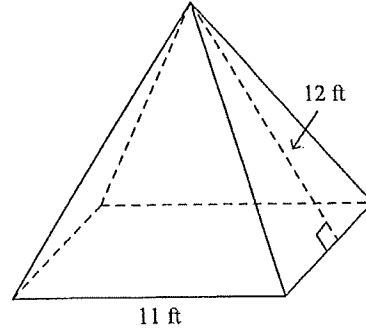
Find the surface area and volume of the cylinder.

11.

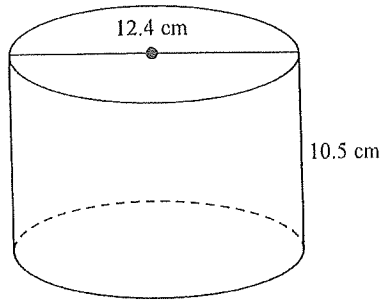


Find the surface area and volume of the regular pyramid.

13.

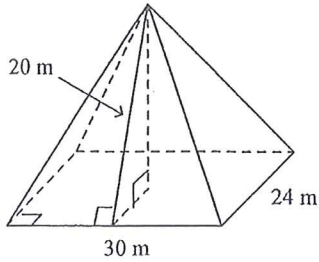


12.

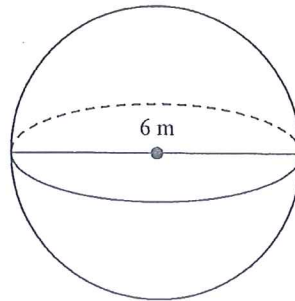


In Question 15, find the surface area, lateral area and volume of the pyramid.

15.

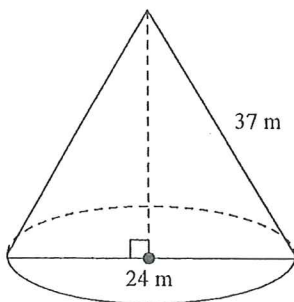


19. Find the surface area of the sphere.

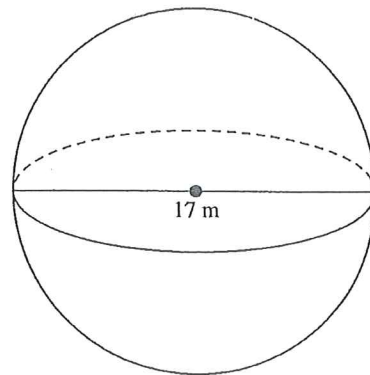


Find the surface area and volume of the cone.

17.



20. Find the volume of the sphere.



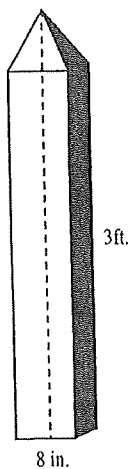
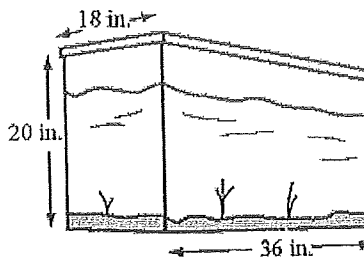
21. Astronomers have used different methods for estimating the size of the planets. One estimate of the diameter of the planet Pluto is 2274 kilometers. Based on that diameter, find the volume of Pluto, assuming that it is a sphere. Use 3.14 for π . Round to the nearest tenth.

24. Find the volume of a rectangular prism that is 10 centimeters long, 14 centimeters wide, and 19 centimeters high. What is the effect on the volume of the rectangular prism when each dimension is doubled?

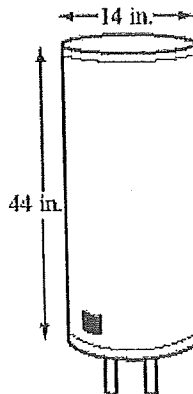
22. Baseballs and softballs come in different sizes for different types of leagues. If the diameter of a baseball is 3 inches and a softball has a diameter of 3.8 inches, find the difference between the volumes of the two balls. Use 3.14 for π . Round to the nearest tenth.

25. Find the amount of glass needed to make an aquarium 36 inches in length, 18 inches in width, and 20 inches in height, the bases of which are also made from glass.

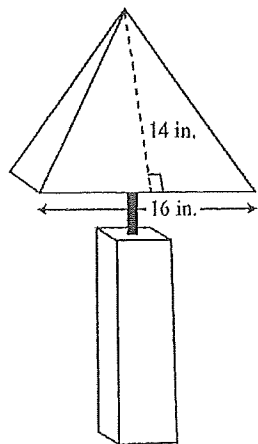
23. Brandon made a model of a tower as shown below. It is composed of a square prism and a square pyramid. The height of the pyramid is 2 inches. What is the surface area and volume of the tower? Round to the nearest hundredth.



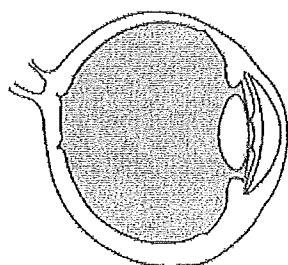
26. A hot-water heater is in the shape of a cylinder. Find the amount of insulation needed to cover the sides of the hot-water heater.



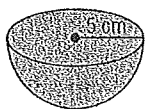
27. A stained-glass lampshade in the shape of a square pyramid is to be made from glass pieces. Find the amount of glass needed to make the lampshade.



28. The human eye is a spherical structure about 25 mm in diameter. Find the surface area of the eye.



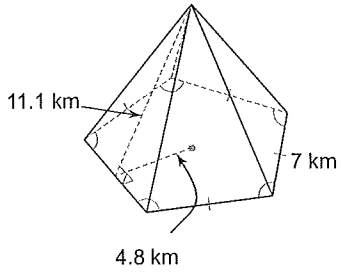
29. Find the surface area of this hemisphere to the nearest tenth.



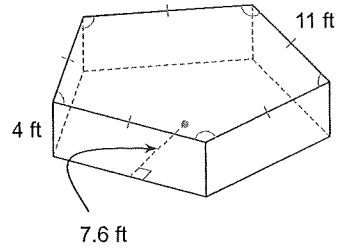
Unit 13: Surface Area and Volume Test Review Continued

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

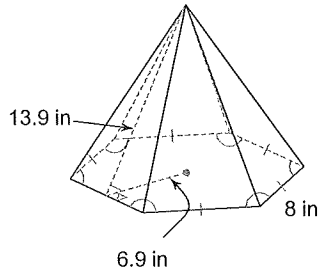
1)



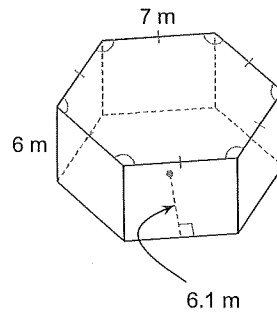
2)



3)



4)



Find the volume of each figure. Round your answers to the nearest tenth, if necessary.

