Independent Practice

Find the volume of each pyramid. Round to the nearest tenth if necessary. (Examples 1 and 2)

1.  
   ![Pyramid 1](image1)
   - Base: 8 ft x 6 ft
   - Height: 10 ft

2.  
   ![Pyramid 2](image2)
   - Base: 9.1 m x 6.8 m
   - Height: 10.6 m

3.  
   ![Pyramid 3](image3)
   - Base: 7 ft x 6 ft
   - Height: 6 ft

4.  
   ![Pyramid 4](image4)
   - Base: 8 cm x 11 cm
   - Height: 14 cm

Find the height of each pyramid. (Examples 3 and 4)

5. Rectangular pyramid: volume 448 in³; base edge 12 in.; base length 8 in.

6. Triangular pyramid: volume 270 cm³; base edge 15 cm; height of base 4 cm

7. A glass pyramid has a height of 4 inches. Its rectangular base has a length of 3 inches and a width of 2.5 inches. Find the volume of glass used to create the pyramid. (Example 5)

8. The Pyramid Arena in Memphis, Tennessee, is a square pyramid that is 321 feet tall. The base has 600-foot sides. Find the volume of the pyramid. (Example 5)
Extra Practice

Find the volume of each pyramid. Round to the nearest tenth if necessary.

15. \[ V = \frac{1}{3} Bh \]
\[ V = \frac{1}{3} \left( \frac{1}{2} \cdot 10 \cdot 3 \right) \cdot 12 \]
\[ V = 60 \text{ in}^3 \]

16. \[ V = \frac{1}{3} Bh \]
\[ V = \frac{1}{3} \left( \frac{1}{2} \cdot 6 \frac{1}{2} \cdot 4 \right) \cdot 12 \]

17. \[ V = \frac{1}{3} Bh \]

18. \[ V = \frac{1}{3} Bh \]

Find the height of each pyramid.

19. square pyramid: volume 297 ft\(^3\); area of the base 81 ft\(^2\)

20. hexagonal pyramid: volume 1,320 ft\(^3\); area of the base 120 ft\(^2\)

21. square pyramid: volume 550 in\(^3\); area of the base 75 in\(^2\)

22. rectangular pyramid: volume 3,800 m\(^3\); area of the base 300 m\(^2\)

23. An ancient stone pyramid has a height of 13.6 meters. The edges of the square base are 16.5 meters. Find the volume of the stone pyramid.