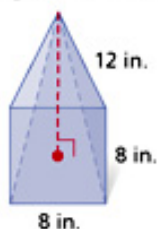Find the lateral area and surface area of each figure. Give exact answers, using π if necessary.

22.
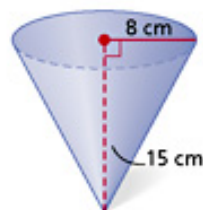

12 in.

8 in.

8 in.

23.

12 m

4 m

24.

8 cm

15 cm
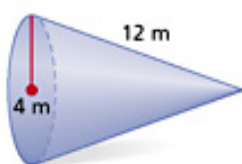
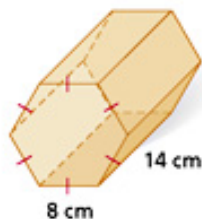**25.** The dimensions of a square pyramid with $B = 64$ in^2 and $h = 7$ in. are tripled. Describe the effect on the surface area.

26. The dimensions of a right cone with $r = 14$ in. and $\ell = 24$ in. are multiplied by $\frac{1}{2}$. Describe the effect on the surface area.
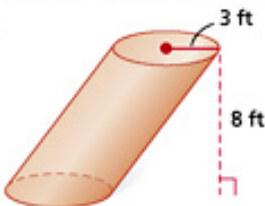
Find the volume of each figure. Round to the nearest tenth.

27.

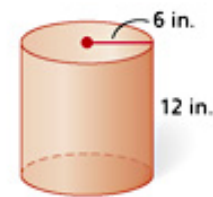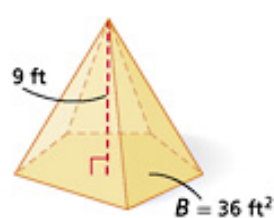14 cm

8 cm

28.

3 ft

8 ft

29.

6 in.

12 in.

30. The dimensions of a prism with $B = 14$ cm^2 and $h = 8$ cm are doubled. Describe the effect on the volume.

31. The dimensions of a cylinder with $r = 6$ cm and $h = 4$ cm are multiplied by $\frac{2}{3}$. Describe the effect on the volume.
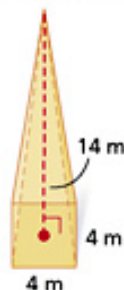
Find the volume of each figure. Round to the nearest tenth.

32.

9 ft

$B = 36$ ft^2

33.

14 m

4 m

4 m

34.

18 ft

9 ft

35. The dimensions of a cone with $r = 8$ cm and $\ell = 17$ cm are multiplied by $\frac{1}{2}$. Describe the effect on the volume.

36. The dimensions of a pyramid with $B = 128$ mm^2 and $h = 56$ mm are tripled. Describe the effect on the volume.
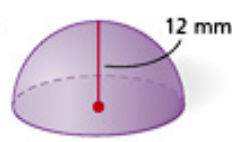
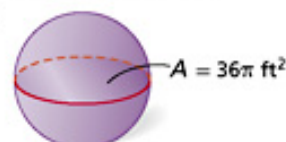Find the surface area and volume of each figure. Give your answers in terms of π.

37.

3 in.

38.

12 mm

39.

$A = 36\pi$ ft^2

40. The radius of a sphere with $r = 24$ cm is multiplied by $\frac{1}{3}$. Describe the effect on the surface area and volume.

41. The radius of a sphere with $r = 15$ mm is multiplied by 4. Describe the effect on the surface area and volume.

Extra Practice