

Answers for Lesson 8-6, pp. 382–384 Exercises

1. Answers may vary. Sample: ft^3 , in.^3 , cm^3
2. about 6 in.^3
3. B
4. A
5. C
6. $18,750 \text{ cm}^3$
7. $3,900 \text{ mm}^3$
8. $5,400 \text{ cm}^3$
9. 20 ft^3
10. $27,720 \text{ in.}^3$
11. 585 in.^3
12. 784 ft^3
13. 302 m^3
14. 616 in.^3
15. 50 ft^3
16. $3,808 \text{ ft}^3$
17. 589 ft^3 ; check students' work.
18. 1 and 12, 2 and 6, 3 and 4
19. doubling the radius, since the radius is squared in calculating the volume
20. a. $14,400 \text{ in.}^3$
b. 8.3 ft^3
21. $1,800 \text{ m}^3$
22. $2,448 \text{ m}^3$
23. Answers may vary. Sample: Start with the equation $\pi r^2 h = 565.5$. Divide each side by 20π , which results in $r^2 = 9.0002$. Take the square root of each side to find the radius. $r \approx 3 \text{ in.}$
24. about 318 in.^3
25. 539 ft^3
26. B
27. G
28. C
29. 35.3%
30. 79.8%
31. 14.0%