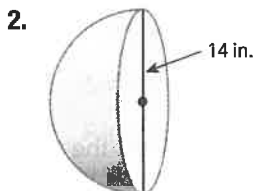
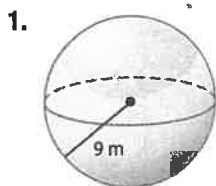




Examples 1–2 Find the surface area of each sphere or hemisphere. Round to the nearest tenth.



- 3. sphere: area of great circle = 36π yd²
- 4. hemisphere: circumference of great circle ≈ 26 cm

Example 3 Find the volume of each sphere or hemisphere. Round to the nearest tenth.

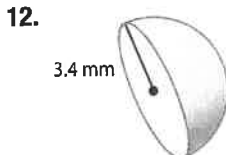
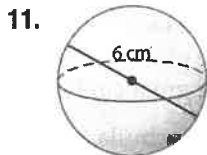
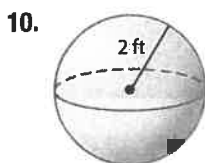
- 5. sphere: radius = 10 ft
- 6. hemisphere: diameter = 16 cm
- 7. hemisphere: circumference of great circle = 24π m
- 8. sphere: area of great circle = 55π in²

Example 4 9. **BASKETBALL** Basketballs used in professional games must have a circumference of $29\frac{1}{2}$ inches. What is the surface area of a basketball used in a professional game?

Practice and Problem Solving

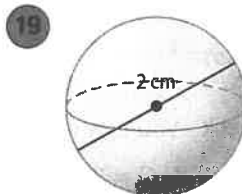
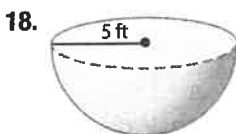
Extra Practice is on page R12.

Examples 1–2 Find the surface area of each sphere or hemisphere. Round to the nearest tenth.



- 14. sphere: circumference of great circle = 2π cm
- 15. sphere: area of great circle ≈ 32 ft²
- 16. hemisphere: area of great circle ≈ 40 in²
- 17. hemisphere: circumference of great circle = 15π mm

Example 3 **CCSS PRECISION** Find the volume of each sphere or hemisphere. Round to the nearest tenth.



- 20. sphere: radius = 1.4 yd
- 21. hemisphere: diameter = 21.8 cm
- 22. sphere: area of great circle = 49π m²
- 23. sphere: circumference of great circle ≈ 22 in.
- 24. hemisphere: circumference of great circle ≈ 18 ft
- 25. hemisphere: area of great circle ≈ 35 m²

