Lesson 12.6 Practice: Spheres and Similar Solids

School Launch · Geometry · Unit 12: Surface Area and Volume · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Find the surface area and volume of a sphere of radius 10 (exact). EASY

2. Find the surface area and volume of a sphere of radius 3 (exact). EASY

3. Find the surface area and volume of a sphere of radius 5 (exact). EASY

4. Two similar solids have heights 3 and 1. The first has volume 351. Find the volume of the second. MEDIUM

5. Two similar solids have heights 3 and 1. The first has volume 729. Find the volume of the second. MEDIUM

6. Two similar solids have heights 4 and 5. The first has volume 448. Find the volume of the second. MEDIUM

7. Two similar solids have heights 1 and 3. The first has volume 24. Find the volume of the second. MEDIUM

8. Two similar solids have heights 2 and 4. The first has volume 16. Find the volume of the second. HARD

9. Two similar solids have heights 2 and 4. The first has volume 160. Find the volume of the second. HARD

10. Two similar solids have heights 5 and 4. The first has volume 1375. Find the volume of the second. HARD