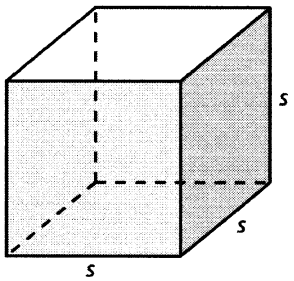
Name Key
Date
Class

14.2 Practice: Finding Cube Roots

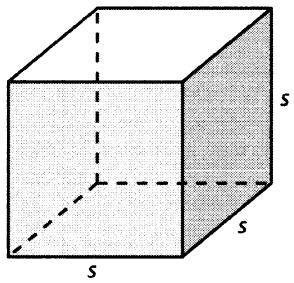
Find the edge length of the cube.

1. Volume = 27,000 cm^3



$s = 30\,cm$

2. Volume = $\frac{1}{8}$ $in.^3$



$s = \frac{1}{2}$ in

Cube each number.

3. 6 $6^3 = 216$

4. (-4) $(-4)^3 = (-64)$

5. 30 $30^3 = 27{,}000$

6. (-½) $(-\frac{1}{2})^3 = (-\frac{1}{8})$

Find the cube root.

7. $\sqrt[3]{125}$ 5

8. $\sqrt[3]{-1}$ (-1)

9. $\sqrt[3]{-8}$ (-2)

10. $\sqrt[3]{-1000}$ (-10)

11. $\sqrt[3]{8000}$ 20

12. $\sqrt[3]{512}$ 8

13. $\sqrt[3]{-\frac{1}{64}}$ $(-\frac{1}{4})$

14. $\sqrt[3]{0.001}$ 0.1

Complete the statement with <, >, **or** =.

15. $-\sqrt[3]{27}$? -4

$-\sqrt[3]{27} > -4$

16. $\sqrt[3]{64}$? $\sqrt{16}$

$\sqrt[3]{64} = \sqrt{16}$

Solve the equation using square roots.

17. $x^3 + 8 = 0$

$x = -2$

18. $8x^3 - 27 = 0$

$x = \frac{3}{2}$

19. $(4x - 1)^3 = 343$

$x = 2$

20. $\sqrt[3]{x + 4} = (-5)$

$x = -129$