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Lesson 1.5 Cubes and Cube Roots

Find the cube of each number.

1. 20 _____

2. 12 _____

3. 17 _____

4. 18 _____

Find the cube root of each number.

5. 512 _____

6. 2,197 _____

7. 4,096 _____

8. 9,261 _____

Solve.

9. List the perfect cubes between 1,000 and 3,000 that are odd numbers.

10. Given that $(3 \times 5) \times (3 \times 5) \times (3 \times 5) = 3{,}375$, find the cube root of 3,375.

Find the value of each of the following.

11. $9^3 - 5^2$

12. $4^2 + 8^3 \div 2^3$

13. $7^3 \times 3^2 - 5^3$

14. $10^3 + 6^3 - 5^3$

15. $\sqrt[3]{1{,}331}$

16. $\sqrt[3]{2{,}744}$

17. $\sqrt[3]{6{,}859}$

18. $\sqrt[3]{729} + 9^3$

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Solve. Show your work.

19. Find the cube root of $8 \times 7 \times 9 \times 49 \times 3$.

20. The volume of a cube is 729 cubic inches. What is the area of each face of the cube?

21. A piece of wire is used to form the framework of a cube. The volume of the cube is 2,744 cubic inches. Find the length of the wire. (Hint: A cube has 12 edges.)