

SQUARE ROOTS and **CUBE ROOTS**

Finding a **square root** of a number is the opposite of squaring the number. The $\sqrt{\quad}$ symbol is used to show square roots.

For example, a square root of 16 is 4.

$$\sqrt{16} = 4 \text{ since } 4^2 = 16$$

Finding the **cube root** of a number is the opposite of cubing the number. The $\sqrt[3]{\quad}$ symbol is used to show cube roots.

For example, the cube root of 125 is 5.

$$\sqrt[3]{125} = 5 \text{ since } 5^3 = 125$$

Find each square root.

1. $\sqrt{4} = \underline{2}$

2. $\sqrt{25} = \underline{5}$

3. $\sqrt{49} = \underline{7}$

4. $\sqrt{1} = \underline{1}$

5. $\sqrt{9} = \underline{3}$

6. $\sqrt{64} = \underline{8}$

7. $\sqrt{36} = \underline{6}$

8. $\sqrt{144} = \underline{12}$

9. $\sqrt{169} = \underline{13}$

10. $\sqrt{121} = \underline{11}$

11. $\sqrt{400} = \underline{20}$

12. $\sqrt{225} = \underline{15}$

Find each cube root.

13. $\sqrt[3]{8} = \underline{2}$

14. $\sqrt[3]{1} = \underline{1}$

15. $\sqrt[3]{27} = \underline{3}$

16. $\sqrt[3]{512} = \underline{8}$

17. $\sqrt[3]{343} = \underline{7}$

18. $\sqrt[3]{1,728} = \underline{12}$

19. $\sqrt[3]{1,331} = \underline{11}$

20. $\sqrt[3]{729} = \underline{9}$

21. $\sqrt[3]{1,000} = \underline{10}$

CHALLENGE YOURSELF! Answer each question.

22. What number has a square root of 10?

100

23. What number has a cube root of 6?

216

24. What is the square root of the square root of 81?

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