

**Examples:**

$$27^{\frac{1}{3}} = \sqrt[3]{27} = 3$$

$$16^{\frac{1}{4}} = \sqrt[4]{16} = 2$$

$$1000^{\frac{2}{3}} = (1000^{\frac{1}{3}})^2 = (\sqrt[3]{1000})^2 = 10^2 = 100$$

$$16^{\frac{5}{2}} = (16^{\frac{1}{2}})^5 = (\sqrt{16})^5 = 4^5 = 1024$$

**Find the value of:**

1.  $64^{\frac{1}{3}} = 4$

10.  $81^{\frac{3}{2}} = 729$

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

11.  $216^{\frac{2}{3}} = 36$

3.  $49^{\frac{1}{2}} = 7$

12.  $243^{\frac{3}{5}} = 27$

4.  $400^{\frac{1}{2}} = 20$

13.  $128^{\frac{2}{7}} = 4$

5.  $81^{\frac{1}{4}} = 3$

14.  $144^{\frac{3}{2}} = 1728$

6.  $81^{\frac{1}{2}} = 9$

15.  $25^{\frac{3}{2}} = 125$

7.  $49^{\frac{3}{2}} = 343$

16.  $16^{\frac{7}{4}} = 128$

8.  $100^{\frac{3}{2}} = 1000$

17.  $100,000^{\frac{3}{5}} = 1000$

9.  $8^{\frac{5}{3}} = 32$

18.  $3125^{\frac{2}{5}} = 25$