

Practice 7-4**Rational Exponents**

Simplify each expression. Assume that all variables are positive.

1. $27^{\frac{1}{3}}$

2. $\left(81^{\frac{1}{4}}\right)^4$

3. $\left(32^{\frac{1}{5}}\right)^5$

4. $(256^4)^{\frac{1}{4}}$

5. 7^0

6. $8^{\frac{2}{3}}$

12. $(8^2)^{\frac{1}{3}}$

13. 3.6^0

16. $\sqrt[8]{0}$

25. $81^{-\frac{1}{2}}$

Write each expression in radical form.

29. $x^{\frac{4}{3}}$

32. $b^{\frac{1}{5}}$