

6.2 Practice

Name: _____

Simplify:

1. $3^{\frac{3}{4}} \cdot 3^{\frac{2}{5}}$

2. $\frac{\sqrt[4]{4}}{2^{\frac{1}{3}}}$

3. $\left(5^{\frac{3}{4}} \cdot \sqrt[3]{5}\right)^{12}$

4. $\frac{20}{\sqrt[4]{5}}$

5. $\sqrt[4]{32} + \sqrt[4]{162}$

6. $\sqrt{64x^2y^4z^8}$

7. $\sqrt{50x^3y^6z^9}$

8. $\sqrt[3]{24x^6y^4z^8}$

Simplify without using a calculator:

9. $27^{\frac{2}{3}}$

10. $64^{-\frac{1}{3}}$

11. $1994^{\frac{3}{7}}$

12. $\sqrt[9]{-125}$

Simplify using a calculator:

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Simplify using a calculator: