

Rational Exponents

Evaluate each of the following, if possible.

1. Make any negative exponents positive.

2. Change to radicals

3. Simplify.

1. $100^{1/2}$

2. $(-25)^{1/2}$

3. $-25^{1/2}$

4. $-64^{5/3}$

5. $\left(\frac{81}{49}\right)^{3/2}$

6. $-\left(\frac{1}{32}\right)^{2/5}$

7. $25^{-1/2}$

8. $(-25)^{-1/2}$

9. $(-32)^{-3/5}$

10. $8^{1/2} \cdot 8^{1/6}$

11. $\frac{8^{1/2}}{8^{1/6}}$

Simplify. All answers should have only POSITIVE exponents.

12. $x^{1/5} \cdot x^{3/4}$

13. $(25x^5)^{1/2} \cdot (3x^{1/4})$

14. $\frac{-5x^{-2}y}{10x^{1/4}y^{2/3}}$