Quiz Review 1 on Rational Exponents   Name:

Non-Calculator

Simplify each expression. Assume that all variables are positive.

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

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

5. 7^0

7. $(-1)^{\frac{1}{5}}$

9. $16^{\frac{1}{4}}$

11. $2y^{\frac{1}{2}} \cdot y$

13. 3.6^0

15. $\left(\dfrac{27}{8}\right)^{\frac{2}{3}}$

17. $\left(3x^{\frac{1}{2}}\right)\left(4x^{\frac{2}{3}}\right)$

19. $\left(3a^{\frac{1}{2}}b^{\frac{1}{3}}\right)^2$

21. $\left(a^{\frac{2}{3}}b^{-\frac{1}{2}}\right)^{-6}$

23. $\left(\dfrac{x^{\frac{4}{7}}}{x^{\frac{2}{3}}}\right)$