

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

Simplifying Rational Exponents

Simplify. Use only positive exponents, with no fractional exponents in a denominator. Assume every variable is positive.

1. $(4 \cdot b^6)^{1.5}$

6. $\left(\frac{a^{\frac{7}{3}} \cdot n^5}{a^{\frac{5}{3}} \cdot n} \right)^6$

2. $y^4 \cdot 8 \cdot y^{\frac{2}{5}} \cdot y^{-4}$

7. $(81 \cdot a^2)^{1.75}$

3. $\frac{9 \cdot b^{\frac{2}{3}}}{21 \cdot b^{\frac{1}{3}}}$

8. $\left(x^{\frac{1}{3}} \right)^8$

4. $\left(m^{\frac{3}{2}} \right)^{-8}$

9. $\frac{8 \cdot y^{\frac{-1}{3}} \cdot n^7}{10 \cdot y \cdot n^{\frac{4}{3}}}$

5. $\left(b^{-7} \cdot x^{\frac{1}{2}} \cdot b \right)^4$

10. $\left(n^{\frac{2}{3}} \right)^7$
