

Name : _____ Score : _____

Teacher : _____ Date : _____

Simplifying Rational Exponents

Simplify. For the answers: only positive exponents with no fractional exponents in the denominator

1) $\frac{5n^{\frac{2}{3}} \cdot 125n^{\frac{2}{3}}r^{\frac{2}{3}}}{125r^{\frac{5}{3}}}$

6) $\left(qz^{\frac{1}{3}} \cdot q \cdot q^{\frac{2}{4}}z^7\right)^7$

2) $(64s^5)^{1.5}$

7) $\frac{32k^{\frac{3}{4}}}{2k^{\frac{1}{2}} \cdot 16s^{\frac{3}{2}}k^{\frac{3}{4}}}$

3) $\frac{144g^2}{12g^{\frac{1}{3}}}$

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

4) $(9x^5)^{\frac{1}{2}}$

9) $\left(\frac{s^{\frac{5}{3}}x^{\frac{6}{3}}}{xs^{\frac{1}{3}}}\right)^7$

5) $(q^{\frac{3}{5}})^{-6}$

10) $(d^{\frac{1}{3}})^{\frac{8}{3}}$

