Name : _____ Score : _____

Teacher : _____ Date : _____

Simplifying Rational Exponents

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

1) $\frac{5n^{\frac{2}{3}} \cdot 125n^{\frac{-2}{3}} r^{\frac{3}{4}}}{125r^{\frac{5}{2}}}$

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

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

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

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

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

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

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

9) $\left(\frac{s^{\frac{6}{4}} x^{6}}{x s^{\frac{3}{4}}} \right)^{7}$

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