

6.4 B Dividing and Rationalizing Rational Exponents

Period _____

Simplify. Your answer should contain only positive exponents with no fractional exponents in the denominator.

1) $\frac{3x^{\frac{3}{2}}}{2x^{\frac{2}{3}}}$

2) $\frac{4x^{\frac{7}{4}}}{2x^{\frac{3}{2}}}$

3) $\frac{2n^{\frac{1}{3}}}{n^{\frac{3}{2}}}$

4) $\frac{k^3}{4k^{\frac{1}{3}}}$

5) $\frac{x^{\frac{1}{2}}}{4x^{\frac{5}{3}}}$

6) $\frac{x^{\frac{5}{4}}}{x^4}$

7) $\frac{2p^{\frac{1}{3}}}{2p^{\frac{3}{2}}}$

8) $\frac{3r^{\frac{5}{2}}}{4r^3}$

9) $\frac{4n^{\frac{7}{4}}}{3n^{\frac{5}{4}}}$

10) $\frac{x^{\frac{4}{3}}}{3x}$

$$11) \frac{3a^{\frac{3}{4}}}{3a^4}$$

$$12) \frac{3p^4}{4p^2}$$

$$13) \frac{5m^{\frac{1}{4}}}{4m^{\frac{1}{2}}}$$

$$14) \frac{4b^{\frac{1}{2}}}{3b^2}$$

$$15) \frac{a^{\frac{5}{3}}}{a^2}$$

$$16) \frac{2p^{\frac{3}{4}}}{4p^{\frac{3}{2}}}$$

$$17) \frac{4k^{\frac{3}{2}} \cdot 4k^{\frac{3}{4}}}{3k^2 \cdot 2k^{\frac{1}{2}}}$$

$$18) \frac{2r^{\frac{1}{2}}}{r^{\frac{2}{3}} \cdot 2r^{\frac{5}{3}}}$$

$$19) \frac{4k^{\frac{1}{2}}}{k^{\frac{1}{4}} \cdot 3k^{\frac{5}{4}}}$$

$$20) \frac{4b^{\frac{1}{2}}}{4b^{\frac{5}{3}} \cdot b}$$