Math 1 Name_____ ID: 1

Lesson 5 Assignment Rational Exponnets

Date_____ Period____

Simplify.

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

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

3) $2y^2 \cdot 3x^{\frac{3}{4}} y^{\frac{3}{2}}$

4) $\left(n^2\right)^{\frac{2}{3}}$

5) $\left(m^{\frac{1}{4}}\right)^{\frac{5}{3}}$

6) $\left(ab^{\frac{1}{2}}\right)^2$

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

7) $\dfrac{3n^{\frac{2}{3}}}{3n^2}$

8) $\dfrac{x}{2x^{\frac{5}{4}}}$

9) $\dfrac{2y^2}{3y^{\frac{3}{2}}}$

10) $\dfrac{3x^{\frac{3}{2}} y^{\frac{4}{3}}}{3x^2 y^{\frac{1}{2}}}$

Answers to Lesson 5 Assignment Rational Exponnets (ID: 1)

1) $6m^{\frac{7}{4}}$

2) $6p^{\frac{11}{6}}$

3) $6x^{\frac{3}{4}}y^{\frac{7}{2}}$

4) $n^{\frac{4}{3}}$

5) $m^{\frac{5}{12}}$

6) $a^2 \cdot b$

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

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

9) $\frac{2y^{\frac{1}{2}}}{3}$

10) $\frac{x^{\frac{1}{2}}y^{\frac{5}{6}}}{x}$