Maths with Melissa

Dividing and Simplifying Algebraic Fractions with Indices Worksheet

Exercises

1. Simplify: $\frac{4x^5}{2x^2}$

2. Simplify: $\frac{9a^7b^3}{3a^2b}$

3. Simplify: $\frac{15m^4n^2}{5m^2n} \div \frac{3mn^3}{m^3n}$

4. Simplify: $\frac{2x^3y^2}{8xy^5}$

5. Simplify: $\frac{6a^5b^2}{9a^2b^4} \div \frac{2a^3b}{3ab^2}$

6. Simplify: $\frac{x^6y^3}{x^2y}$

7. Simplify: $\frac{10p^8q^4}{5p^3q^2} \div 2p^2q$

8. Simplify: $\frac{a^7b^5}{a^3b^2} \div \frac{a^2b}{ab^3}$

9. Simplify: $\frac{18x^9y^4}{6x^3y^2} \div 3x^2y$

10. Simplify: $\frac{12m^6n^2}{4m^2n} \div \frac{3m^3n}{2mn^2}$

Answer Key

1. $2x^3$
2. $3a^5b^2$
3. m^3n^2
4. $\frac{y^{-3}}{4x^{-2}} = \frac{x^2}{4y^3}$
5. $\frac{2a^2b}{3}$
6. x^4y^2
7. p^3q
8. a^3b^5
9. x^4y
10. $2m^2$