

Day 3 - Exponent Laws

Date _____ Period _____

Simplify.

1) $4y^3 \cdot 2x^4y^2$

2) $x^2y^2 \cdot 4x^2y^3$

Simplify. Your answer should contain only positive exponents.

3) $xy^2 \cdot 4y^{-4}$

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

Simplify.

5) $(3m^2)^4$

6) $(2xy^2)^2$

Simplify. Your answer should contain only positive exponents.

7) $(2yx^{-1})^2$

8) $(u^3v^{-4})^4$

9) $\frac{3x^3}{3y}$

10) $\frac{xy}{3x^3y^3}$

11) $\frac{4v^{-2}}{2v^2}$

12) $\frac{2x^3y^3}{3x^{-3}y^{-2}}$

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Date _____ Period _____

Simplify.

1) $4y^3 \cdot 2x^4y^2$
 $8y^5x^4$

2) $x^2y^2 \cdot 4x^2y^3$
 $4x^4y^5$

Simplify. Your answer should contain only positive exponents.

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

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

Simplify.

5) $(3m^2)^4$
 $81m^8$

6) $(2xy^2)^2$
 $4x^2y^4$

Simplify. Your answer should contain only positive exponents.

7) $(2yx^{-1})^2$
 $\frac{4y^2}{x^2}$

8) $(u^3v^{-4})^4$
 $\frac{u^{12}}{v^{16}}$

9) $\frac{3x^3}{3y}$
 $\frac{x^3}{y}$

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

11) $\frac{4v^{-2}}{2v^2}$
 $\frac{2}{v^4}$

12) $\frac{2x^3y^3}{3x^{-3}y^{-2}}$
 $\frac{2x^6y^5}{3}$