

Unit 6 Day 4 Homework - Exponent Rules Practice

Directions: Simplify.

1. $(3x)^2 \cdot 2x^2$

$9x^2 \cdot 2x^2$
 $18x^4$

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

$y^9 \cdot \frac{1}{y^2} = \frac{y^9}{y^2} = y^7$

3. $\frac{x^4 y^7}{xy^{10}} = \frac{x^3}{y^3}$

4. $\left(\frac{-2m^{17}}{m^{15}}\right)^3$ Simplify on inside first!

$(-2m^2)^3 = (-2)^3 m^6 = -8m^6$

5. $(-4b^3)^2 = 16b^6$

6. $\frac{m^4}{2m^4} = \frac{1}{2}$

7. $4x^3 \cdot 5xy^2$

$20x^4 y^2$

8. $\frac{16x^4 y^3 z^3}{12x^2 y^2 z^4}$

$\frac{4x^2 y}{3z}$

9. $\frac{3a^4 b^3}{4a} \cdot \frac{4a^5}{b^{10}}$

$\frac{3a^4 a^5 b^3}{a b^{10}} =$

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