

Name: _____

Date: _____ Per: _____

Unit 6: Exponents

Part I – Operations with Monomials

Directions: Simplify each expression. Final answers must contain only positive exponents.

~~1. $5x^3y^5 - 9x^3y^5$~~

~~2. $\frac{3}{4}ab - \frac{5}{12}ab$~~

~~3. $-14mn^2 - mn^2$~~

~~4. Subtract $-3k$ from $-2k$~~

5. $2x^3 \cdot -9x^4$

6. $7a^4b^{-5} \cdot 2a^2b$

7. $(24m^{-2}n)\left(\frac{1}{4}mn\right)$

8. $(4a^{-2})^4$

9. $(9ab^{-5})^{-2}$

10. $\frac{48k^5}{3k^7}$

11. $\frac{12c^7d^4}{15c^{10}d^3}$

12. $(-xy)^4 \cdot (-3x^{-2})^3$

13. $\frac{4x^3y^2 \cdot 3x^6y^3}{24x^{11}y^2}$

14. $\frac{(3rs^2t^4)^2}{21r^2s^3t^{11}}$

15. $(10a^4b^6)(3a^5b^2)$

16. $(-5x^4y^7)^2$

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