

Name: _____

Unit 6: Exponents & Exponential Functions



Date: _____ Bell: _____

Homework 5: Monomials (All Operations)

Simplify the following monomials. Your answer should contain positive exponents only.

1. $3a^3b^2 - 5a^3b^2$

2. $5xy - 2x^2y + 2xy$

3. Subtract $-2w$ from $-6w$

4. $a^4 \cdot a^3$

5. $(-x^5)^2$

6. $\frac{k^9}{k^5}$

7. $-5x^3 \cdot (-3x^4)$

8. $(-2x^2y)^2 \cdot (-3xy^3)$

9. $2a^{-5}b^6 \cdot 5a^2b^2$

10. $(-4y^4)^2$

11. $(a^2bc^3)^4 \cdot (b^2c)^3$

12. $(6cd^{-1})^{-3}$

13. $(4a)^{-3} \cdot a^{-4}$

14. $(3xy)^2 \cdot (-4x^3y^2)^3$

15. $(4a^{-1}b^5c^{-3})^3$

16. $\frac{9d^8}{3d^{10}}$

17. $\frac{6a^5b^2}{4ab^3}$

18. $\frac{32x^3y^2z^5}{-8xyz^2}$

19. $\frac{(2y^5)^4}{10y^{15}}$

20. $\left(\frac{3x^5y^3}{x^3y^6}\right)^4$

21. $\frac{(-6a^5b)^2}{12a^7b} - 8a^3b$