Name: _____ Date: _____

WS 1.6 Exponents Worksheet

Simplify. Calculate powers with numerical bases. Express all powers with natural exponents.

1. $(3x^2)(4x^7)$

=

2. $(7x)(3x^4)(-2x^2)$

=

3. $(-2x^2)^3$

=

4. $(2a^2b)^3$

=

5. $\frac{6x^4}{4x}$

=

6. $\frac{(xy^2)^2}{2x^4y}$

=

7. $\frac{(6x^3y)^2}{(2xy)^4}$

=

8. $(\frac{2x}{y^2})(\frac{x}{2y^2})^2$

=

9. $\frac{3a^2}{4}\frac{2a^4}{12b^5}\frac{b^8}{a^{10}}$

=

10. $(x^{-2})^4)^{-5}$

=

11. $x^{-7}\ x^{10}\ x^4$

=

12. $\frac{(2x)^2(x^2)^7}{(2x^4)^2}$

=

13. $(-2^4)^2$

=

14. $(-3^2)^2$

=

15. $((-2)^3)^1$

=

16. $(-a^2)^3\ (2a^2)^2$

=

17. $(3p)^3\ (-p)^3$

=

18. $(-a^2b^3)^3$

=

19. $(\frac{2x^2}{y})^3(\frac{y^5}{x^3})^2$

=

20. $(\frac{7x^4y}{xy^2})^2$

=

21. $(-2x^2y)^3(x^4y^7)^2$

=

22. $(\frac{10x^3}{x^5})^2$

=

23. $(-\frac{1}{2}m^2n)(\frac{2}{3}m^4n^2)$

=

24. $(-a^2b)(-3ab^4)(4ab^7)$

=

25. $\left(\frac{-3}{b^2}\right)^2(\frac{4a}{b^2})^3(\frac{a^7}{b^4})$

=