

Exponent Rules

Addition and Subtraction	Multiplication	Exponents	Division
<p>Like terms only Add or subtract coefficients. Bases stay the same. Exponents stay the same.</p> <p>Ex. 1: $3a^2b - 2ab^2 + 4ab^2 - a^2b$</p>	<p>Multiply coefficients. Bases stay the same. Add exponents.</p> <p>Ex. 2: $(3mn^2)(3m^3n^4)$</p>	<p>Raise coefficients to the outside power. Bases stay the same. Multiply exponents.</p> <p>Ex. 3: $(2f^2g^3)^4$</p>	<p>Reduce the fraction formed by coefficients. Bases stay the same. Subtract exponents – the result goes where the bigger exponent was.</p> <p>Ex. 4: $\frac{8x^2y^5}{10x^4y}$</p>
1. $2a - 2b + a - b$	2. $(2p^2q)(p^2q^5)$	3. $(8r^5s)^2$	4. $\frac{8r^5s}{4r^2s^2}$
5. $8x^2 + 4x - 2x^2 + x + 7$	6. $(4s^2t^2)(-2s^5t^2)$	7. $(-4a^2b^2)^2$	8. $\frac{7j^8k^{11}}{11j^{12}k^2}$
9. $7c^2d^4 - 2c^2d^2 - c^2d^4$	10. $(2uv)(3uv)(4u^3v)$	11. $(3a^3b^3)^3$	12. $\frac{14y^4z^5}{4yz^5}$