

My “Laws of Exponents” Cheat Sheet**My “Laws of Exponents” Cheat Sheet**✓ **Multiplying Powers with the Same Base**

General Rule: $x^a \bullet x^b = x^{a+b}$

Example: $x^5 \bullet x^6 = x^{11}$

✓ **Dividing Powers with the Same Base**

General Rule: $\frac{x^a}{x^b} = x^{a-b}$

Example: $\frac{x^7}{x^4} = x^3$

✓ **Finding a Power of a Power**

General Rule: $(x^a)^b = x^{a \bullet b}$

Example: $(x^3)^6 = x^{18}$

✓ **Negative Exponents**

General Rule: $x^{-a} = \frac{1}{x^a}$

Example: $x^{-7} = \frac{1}{x^7}$

✓ **Zero as an Exponent**

General Rule: $x^0 = 1$

Example: $5^0 = 1$

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