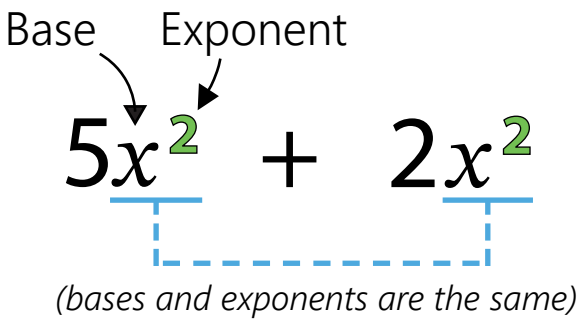
ADDING AND SUBTRACTING WITH EXPONENTS

You can add or subtract exponents if the base and the exponent are the same in both addends.



Remember, an **exponent** tells you how many times the base is multiplied by itself.

Addition	Subtraction	Invalid Expressions
$7x^3 + 4x^3$ $(7 + 4)x^3$ $11x^3$	$12x^4 - 5x^4$ $(12 - 5)x^4$ $7x^4$	$5x^3 + 5x^2$ Exponents are not the same $6x^4 - 2y^4$ Bases are not the same

A **polynomial** combines terms that have the same base raised to the same power.

1. Combine x^2 terms with x^2 terms, and x^3 terms with x^3 terms.
2. Add or subtract.
3. Arrange the terms in descending order based on the exponents.

$8x^2 + 1 + 6x^3 + 4x^3 - 2x^2$

$(8 - 2)x^2 + (6 + 4)x^3 + 1$

$6x^2 + 10x^3 + 1$

$10x^3 + 6x^2 + 1$

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