



Multiplying Monomials

Video Notes

[Video Link](#)

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Multiply: $x^3 \cdot x^2$

$$\underbrace{x \cdot x \cdot x \cdot x \cdot x}_{3+2} = x^5$$

$$\underbrace{x^{50}} \cdot \underbrace{x^{72}} = x^{122}$$

Multiply: $4a^3b^4 \cdot 7ab^2$

$$4 \cdot \underbrace{a \cdot a \cdot a}_{3} \cdot \underbrace{b \cdot b \cdot b \cdot b}_{4} \cdot 7 \cdot \underbrace{a}_{1} \cdot \underbrace{b \cdot b}_{2}$$

$$\boxed{28a^4b^6}$$

Make sure to understand; don't just memorize the rule.

Multiply: $-5tu^5x \cdot 6t^2u$

$$\boxed{-30t^3u^6x}$$

$-5 \cdot 6$ $1+2$ $5+1$

Rule for multiplying monomials:

- multiply coefficients (ex: $4 \cdot 7 = 28$)
- add exponents for like bases.
 - $(a^3 \cdot a = a^4 \text{ (} 3+1=4 \text{)})$
 - $(b^4 \cdot b^2 = b^6 \text{ (} 4+2=6 \text{)})$