

## 6.03 Multiplying and Dividing Monomials

Topics	Space to practice & Video Links
<p><b>Multiplying Monomials with Mixed Variables</b></p> <p><b>Product of Powers rule:</b> To _____ powers with like _____, we need to keep the base and _____ the exponents.</p>	<p><a href="#">6.03Video1</a></p> $(3xy)(4x)$
<p><b>Power of a Power</b></p> <p><b>Power of a Power Property:</b> To raise a power to a _____, multiply the _____.</p>	<p><a href="#">6.03Video2</a></p> $(x^2)^4(y^3)^7$
<p><b>Power of a Product</b></p> <p><b>Power of a Product Property</b></p> <p>The power of a product rule states that when you're _____ a quantity and you raise the entire _____ to a power, you raise each factor to that _____.</p>	<p><a href="#">6.03Video3</a></p> $(4x^2y^3)(2xy^4)^3$
<p><b>Practice #1</b></p> <p>Simplify the expression using the rules of exponents and multiplication of monomials.</p> $(-2x^2y)^3(3xy^5)$	<p><a href="#">6.03Video4</a></p>

<p><b>Negative Exponents</b></p> <p><b>Negative Exponents Rule :</b> If you have a _____ exponent, simply flip the base and exponent to the other _____ of the fraction line, to make the exponent _____.</p> <p><b>Important:</b> An expression usually isn't considered simplified if it contains negative exponents. Your final answer should always have positive exponents.</p>	<p><a href="#">6.03Video5</a></p> $x^{-8} =$ $\frac{5}{x^{-7}} =$
<p><b>Quotient of Powers</b></p> <p><b>Quotient of Powers Rule:</b> To divide _____ with like bases, keep the base and _____ the exponents.</p>	<p><a href="#">6.03Video6</a></p> $\frac{20x^3}{10x^4} =$
<p><b>Zero Exponents</b></p> <p><b>Zero Exponents Rule:</b> Anything to the _____ power is _____ to 1.</p>	<p><a href="#">6.03Video7</a></p> $5^0 = \underline{\hspace{2cm}}$ $278^0 = \underline{\hspace{2cm}}$

● **Want More Practice?**

Topic	
Powers of Monomials	<a href="#">Try It</a>
Division with Exponents	<a href="#">Try It</a>
Multiplication & Division w/ Exponents	<a href="#">Try It</a>
Expressions w/ Exponents (contains 0/- exponents)	<a href="#">Try It</a>
Negative Exponents	<a href="#">Try It</a>

\*\* [Laws of Exponents Foldable](#) \*\*\* Fun easy foldable to help review this lesson