

## Order of Operations with Radicals

Notes	Video Links & Practice Space
<p><b>Vocabulary</b></p> <ol style="list-style-type: none"><li>1. <b>Exponent:</b> the number of times the _____ occurs as a factor.</li><li>2. <b>Radical:</b> symbol that means _____ of, such as square or cube root.</li><li>3. <b>Order of Operations:</b> the order of performing _____ is to first work within grouping symbols using the order of operations; then simplify terms with exponents; next, while reading from left to right, perform multiplication and division in the order in which it appears; finally, while reading from left to right, perform addition and subtraction in the order in which it appears.</li></ol>	<p><a href="#">Vocabulary (1:01)</a></p>
<p><b>Steps for Order of Operations</b></p> <p><b>Step 1:</b> Simplify inside parenthesis ( ) or other grouping symbols [ ],     using order of operations.</p> <p><b>Step 2:</b> Simplify terms with exponents and radicals.</p> <p><b>Step 3:</b> Multiply or divide from left to right.</p> <p><b>Step 4:</b> Add or subtract from left to right.</p>	<p><a href="#">Steps for Order of Operations (0:42)</a></p>

**Examples:**

$(6 - 13)^2$	$12 - 24 + 3^3$
$[(7 - 3) - 4^2] + 8$	$ (6 - 12 + 5)^3  - 2$

[Examples Part 1 \(3:38\)](#)

**Examples:**

$\left(\frac{1}{4}\right)^2 - 14 \div \sqrt{256}$	$\frac{\sqrt[3]{8}}{4^2} \cdot 4 - \sqrt[3]{49}$
$3^3 - \sqrt{144}$	$\left(\frac{1}{5}\right)^3 + (\sqrt[3]{125} \div 5^2)$

[Examples Part 2 \(8:34\)](#)