

Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes									
<h2 style="text-align: center;">Order of Operations</h2> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; width: 10%;">G</td> <td>Grouping Symbols (), [], { }, and fraction bars</td> </tr> <tr> <td style="text-align: center;">E</td> <td>Exponents (and Roots)</td> </tr> <tr> <td style="text-align: center;">MD</td> <td>Multiplication & Division (left → right)</td> </tr> <tr> <td style="text-align: center;">AS</td> <td>Addition & Subtraction (left → right)</td> </tr> </table>	G	Grouping Symbols (), [], { }, and fraction bars	E	Exponents (and Roots)	MD	Multiplication & Division (left → right)	AS	Addition & Subtraction (left → right)	<p>Directions: Simplify each expression.</p>	
	G	Grouping Symbols (), [], { }, and fraction bars								
	E	Exponents (and Roots)								
	MD	Multiplication & Division (left → right)								
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	<p>1. $29 - (11 - 2^3) + 6^2 \div 4$</p>	<p>2. $4^3 - -8 \cdot 6 \div 16$</p>								
	<p>3. $\frac{7 - (10 - 12 + 5^2)}{9 - 2^2}$</p>	<p>4. $\frac{(2 - 3^2)^2 + \sqrt{81}}{10 - 6 \div 3}$</p>								
	<p>5. $\frac{[15 - (-6 + 2 + \sqrt{9})]^2}{3 - 3^3}$</p>	<p>6. $\frac{(9 - 15)^2 \cdot (7 - 2^2)}{\sqrt{49} + 5} - -5$</p>								
<h2 style="text-align: center;">Evaluating Expressions</h2>	<p>Directions: Evaluate each expression given the variable replacements.</p>									
	<p>7. $\frac{a \cdot b^2}{c + 12}$ (if $a = 3$, $b = -4$, and $c = 8$)</p>	<p>8. $10m - 8n^2$ (if $m = 2$ and $n = -3$)</p>								

	9. $-x^2 + 7(y + 2) - 1$ (if $x = 5$ and $y = -9$)	10. $3r - 4s$ (if $r = 5$ and $s = \frac{2}{3}$)
	11. $ x^2 - y^2 - x \cdot y$ (if $x = -6$ and $y = 8$)	12. $\frac{2}{5}(a + 2b)^2$ (if $a = 3$ and $b = -4$)
	13. $\frac{w^3 - 4v}{\sqrt{wv}}$ (if $w = 2$ and $v = 18$)	14. $2m^2 + 9m$ (if $m = \frac{1}{4}$)
<h2 style="text-align: center;">Simplifying Expressions</h2>	Directions: Simply each expression below by distributing and/or combining like terms.	
	15. $16x - 11 - 7x + 10$	16. $13 + 2(3n - 7) + 19n$
	17. $6(c - 2) - (8c + 1)$	18. $-15y - 7z + y + 9z$
	19. $3(3a - 5b) - (a - 7b)$	20. $-8(2x + y) - 3(-5x - 2y)$