

Algebra Readiness Builders

Sixth Grade Math

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Algebra Readiness Educators, LLC

Sixth Grade Builder # 1

Name: _____

Multiply Integers	$2 \cdot 3 = \underline{\quad}$ $-2 \times 4 = \underline{\quad}$ $2(-5) = \underline{\quad}$			Integer Rules $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.	
	$3 \cdot (-5) = \underline{\quad}$ $-5 \times (-8) = \underline{\quad}$ $2(-6) = \underline{\quad}$				
	$-4 \cdot (-2) = \underline{\quad}$ $-3 \times (-5) = \underline{\quad}$ $12(3) = \underline{\quad}$				
Computation	$\begin{array}{r} 23 \\ \times 36 \\ \hline \end{array}$	$2 \overline{) \$12.60}$	$\begin{array}{r} 4.67 \\ + 0.23 \\ \hline \end{array}$	$\begin{array}{r} 0.37 \\ + 0.23 \\ \hline \end{array}$	Change the fraction to a decimal with division. $\frac{1}{2} \quad \begin{array}{r} 0.5 \\ 2 \overline{) 1.0} \\ \underline{-10} \\ 0 \end{array}$
	GEMDAS Great Educators Make Doing Algebra Simple! G rouping Symbols E xponent M ultiply- D ivide (left to right) first then A dd- S ubtract(left to right)				
	Order of Operations $9 - 7 + 5$ $20 - 4 \div 2$ $6 + 6 \div 6$ $8 + 10 - 3$				
Powers/Bases Exponents	3^2 base ^{exponent}	4^2	5^2	6^2	7^2
	3×3	$\underline{\quad} \times \underline{\quad}$	$\underline{\quad} \times \underline{\quad}$	$\underline{\quad} \times \underline{\quad}$	$\underline{\quad} \times \underline{\quad}$
	9	$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$	$\underline{\quad}$
Vocabulary	power integers base exponent order of operations evaluate				
	The _____ is the factor in exponential form. Great Educators Make Doing Algebra Simple! _____ The natural numbers, their opposites, and zero ... - 3, -2, -1, 0, 1, 2, 3, ... _____ The number expressed using exponents _____ A raised number that represents repeated multiplication of a factor. _____ To find the value of an expression. _____				
	FDP $\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{1}{10} = 0.1 = 10\%$ $\frac{2}{2} = 1.0 = 100\%$ $\frac{1}{2} = 0.5 = \underline{\quad}\%$ $\frac{1}{5} = 0.2 = \underline{\quad}\%$ $\frac{1}{10} = 0.1 = \underline{\quad}\%$ $\frac{2}{2} = 1.0 = \underline{\quad}\%$ $\frac{1}{1} = \underline{\quad} = 50\%$ $\frac{1}{5} = \underline{\quad} = 20\%$ $\frac{1}{10} = \underline{\quad} = 10\%$ $\frac{2}{2} = \underline{\quad} = 100\%$				

Sixth Grade Builder #2

Name: _____

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Multiply Integers</p>	$3 \cdot 4 = \underline{\quad}$ $5 \cdot (-4) = \underline{\quad}$ $-4 \cdot (-6) = \underline{\quad}$	$-5 \times 6 = \underline{\quad}$ $-7 \times (-3) = \underline{\quad}$ $-3 \times (-6) = \underline{\quad}$	$2(-6) = \underline{\quad}$ $3(-6) = \underline{\quad}$ $10(3) = \underline{\quad}$	<p>Integer Rules</p> <p>$= -$</p> <p>$(-)(+) = -$</p> <p>$(-)(-) = +$</p> <p>$(+)(+) = +$</p> <p>Memorize the rules, they are the same for division.</p>												
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Computation</p>	$\begin{array}{r} 13 \\ \times 14 \\ \hline \end{array}$	$4 \overline{) \$24.80}$	$\begin{array}{r} 3.22 \\ + 0.14 \\ \hline \end{array}$	$\begin{array}{r} 0.17 \\ - 0.13 \\ \hline \end{array}$	<p>Change the fraction to a decimal with division.</p> $\frac{1}{5} \quad 5 \overline{) 1.0}$											
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Order of Operations</p>	<p>GEMDAS Great Educators Make Doing Algebra Simple!</p> <p>Grouping Symbols Exponent Multiply-Divide (left to right) first then Add-Subtract (left to right)</p> <p>$10 - 6 + 5$ $40 - 12 \div 6$ $5 + 5 \div 5$ $8 + 12 - 6$</p>															
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Powers/Bases Exponents</p>	$8 \times 8 \times 8$ 8^3	9^2 ____ x ____ ____	$10 \times 10 \times 10$ ____	11^2 ____ x ____ ____	$12 \times 12 \times 12$ ____											
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Vocabulary</p>	<p>power integers base exponent order of operations evaluate</p>	<p>The number expressed using exponents. _____</p> <p>The natural numbers, their opposites and zero. ...- 3, -2, -1, 0, 1, 2, 3,... _____</p> <p>A raised number that represents repeated multiplication of a factor. _____</p> <p>Grouping symbols Exponents Multiply Divide Add Subtract _____</p> <p>To find the value of an expression. _____</p> <p>The _____ is the factor in exponential form.</p>														
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">FDP</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">$\frac{1}{2} = \underline{\quad} = \underline{\quad}\%$</td> <td style="width: 25%;">$\frac{1}{5} = \underline{\quad} = \underline{\quad}\%$</td> <td style="width: 25%;">$\frac{1}{10} = \underline{\quad} = \underline{\quad}\%$</td> <td style="width: 25%;">$\frac{2}{2} = \underline{\quad} = \underline{\quad}\%$</td> </tr> <tr> <td>$\frac{1}{2} = 0.5 = \underline{\quad}\%$</td> <td>$\frac{1}{5} = 0.2 = \underline{\quad}\%$</td> <td>$\frac{1}{10} = 0.1 = \underline{\quad}\%$</td> <td>$\frac{2}{2} = 1.0 = \underline{\quad}\%$</td> </tr> <tr> <td>$\frac{1}{1} = \underline{\quad} = 50\%$</td> <td>$\frac{1}{5} = \underline{\quad} = 20\%$</td> <td>$\frac{1}{10} = \underline{\quad} = 10\%$</td> <td>$\frac{2}{2} = \underline{\quad} = 100\%$</td> </tr> </table>				$\frac{1}{2} = \underline{\quad} = \underline{\quad}\%$	$\frac{1}{5} = \underline{\quad} = \underline{\quad}\%$	$\frac{1}{10} = \underline{\quad} = \underline{\quad}\%$	$\frac{2}{2} = \underline{\quad} = \underline{\quad}\%$	$\frac{1}{2} = 0.5 = \underline{\quad}\%$	$\frac{1}{5} = 0.2 = \underline{\quad}\%$	$\frac{1}{10} = 0.1 = \underline{\quad}\%$	$\frac{2}{2} = 1.0 = \underline{\quad}\%$	$\frac{1}{1} = \underline{\quad} = 50\%$	$\frac{1}{5} = \underline{\quad} = 20\%$	$\frac{1}{10} = \underline{\quad} = 10\%$	$\frac{2}{2} = \underline{\quad} = 100\%$
$\frac{1}{2} = \underline{\quad} = \underline{\quad}\%$	$\frac{1}{5} = \underline{\quad} = \underline{\quad}\%$	$\frac{1}{10} = \underline{\quad} = \underline{\quad}\%$	$\frac{2}{2} = \underline{\quad} = \underline{\quad}\%$													
$\frac{1}{2} = 0.5 = \underline{\quad}\%$	$\frac{1}{5} = 0.2 = \underline{\quad}\%$	$\frac{1}{10} = 0.1 = \underline{\quad}\%$	$\frac{2}{2} = 1.0 = \underline{\quad}\%$													
$\frac{1}{1} = \underline{\quad} = 50\%$	$\frac{1}{5} = \underline{\quad} = 20\%$	$\frac{1}{10} = \underline{\quad} = 10\%$	$\frac{2}{2} = \underline{\quad} = 100\%$													

Sixth Grade Builder # 3

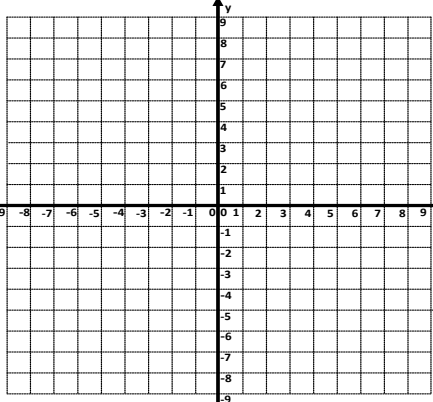
Name: _____

Multiply Integers	$-6 \cdot 4 = \underline{\hspace{2cm}}$ $-5 \cdot (-8) = \underline{\hspace{2cm}}$ $-3 \cdot 7 = \underline{\hspace{2cm}}$	$-5 \times 8 = \underline{\hspace{2cm}}$ $-6 \times (-6) = \underline{\hspace{2cm}}$ $-4 \times (-6) = \underline{\hspace{2cm}}$	$7(-8) = \underline{\hspace{2cm}}$ $9(-4) = \underline{\hspace{2cm}}$ $11(-9) = \underline{\hspace{2cm}}$	<p>Integer Rules</p> $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.	
Computation	$\begin{array}{r} 66 \\ \times 24 \\ \hline \end{array}$	$3 \overline{) \$33.90}$	$\begin{array}{r} 4.25 \\ + 0.16 \\ \hline \end{array}$	$\begin{array}{r} 2.17 \\ - 0.19 \\ \hline \end{array}$	<p>Change the fraction to a decimal with division.</p> $\frac{1}{10} \qquad 10 \overline{) 1.0}$
Order of Operations	<p style="text-align: center;">Great Educators Make Doing Algebra Simple!</p> <p>Grouping Symbols Exponent Multiply-Divide (left to right) first then Add-Subtract (left to right)</p> <p> $10 \times 6 + 5$ $2 \times 12 \div 6$ $8 + 5 \times 5$ $12 \div 2 - 6$ </p>				
Powers/Bases & Exponents	$2 \times 2 \times 2 \times 2$ _____	2^3 _____ \times _____ \times _____ _____	$5 \times 5 \times 5 \times 5$ _____	7^2 _____ \times _____ _____	$7 \times 7 \times 7 \times 7$ _____
Vocabulary	power integers base exponent order of operations evaluate	To find the value of an expression. _____ A raised number that represents repeated multiplication of a factor. _____ The _____ is the factor in exponential form . GEMDAS _____ The number expressed using exponents. _____ The natural numbers, their opposites and zero....- 3, -2, -1, 0, 1, 2, 3,... _____			
FDP	$\frac{1}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{1}{1} = \underline{\hspace{1cm}} = 50\%$ $\frac{1}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{1}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{1}{5} = \underline{\hspace{1cm}} = 20\%$ $\frac{1}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{1}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{1}{10} = \underline{\hspace{1cm}} = 10\%$ $\frac{1}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{2}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{2}{2} = \underline{\hspace{1cm}} = 100\%$ $\frac{2}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Multiply Integers</p>	$-3 \cdot (-4) = \underline{\quad}$ $-3 \times 2 = \underline{\quad}$ $8(-8) = \underline{\quad}$ $4 \cdot (-8) = \underline{\quad}$ $-5 \times (-7) = \underline{\quad}$ $9(-9) = \underline{\quad}$ $-3 \cdot (-10) = \underline{\quad}$ $-3 \times (-8) = \underline{\quad}$ $12(-5) = \underline{\quad}$	<p>Integer Rules</p> $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.			
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Computation</p>	$\begin{array}{r} 123 \\ \times 3 \\ \hline \end{array}$	$10 \overline{) \$40.00}$	$\begin{array}{r} 8.75 \\ + 0.28 \\ \hline \end{array}$	$\begin{array}{r} 3.25 \\ - 0.17 \\ \hline \end{array}$	<p>Change the fraction to a decimal with division.</p> $\frac{1}{4}$ $4 \overline{) 1.00}$
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Order of Operations</p>	<p style="text-align: center;">Great Educators Make Doing Algebra Simple!</p> <p>GEMDAS Grouping Symbols Exponent Multiply-Divide (left to right) first then Add-Subtract (left to right)</p> <p> $2 \times 6 + 5$ $2 \times 12 \div 6$ $8 + 5 \times 5 - 3$ $12 \div 2^2 - 3$ </p>				
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Powers/Bases & Exponents</p>	$2 \times 2 \times 2 \times 2 \times 2$	3^3	5×5	9^2	$7 \times 7 \times 7 \times 7 \times 7$
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Vocabulary</p>	<p>power integers base exponent order of operations evaluate</p>	<p>The natural numbers, their opposites and zero....- 3, -2, -1, 0, 1, 2, 3,... _____</p> <p>To find the value of an expression. _____</p> <p>Grouping symbols Exponents Multiply Divide Add Subtract _____</p> <p>A raised number that represents repeated multiplication of a factor. _____</p> <p>The number expressed using exponents. _____</p> <p>The _____ is the factor in exponential form .</p>			
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">FDP</p>	$\frac{1}{2} = \underline{\quad} = \underline{\quad}\%$ $\frac{1}{10} = \underline{\quad} = \underline{\quad}\%$ $\frac{2}{5} = 0.4 = \underline{\quad}\%$	$\frac{1}{5} = \underline{\quad} = \underline{\quad}\%$ $\frac{2}{2} = \underline{\quad} = \underline{\quad}\%$ $\frac{2}{10} = 0.2 = \underline{\quad}\%$	$\frac{1}{10} = \underline{\quad} = \underline{\quad}\%$ $\frac{1}{5} = \underline{\quad} = \underline{\quad}\%$ $\frac{3}{5} = 0.6 = \underline{\quad}\%$	$\frac{2}{2} = \underline{\quad} = \underline{\quad}\%$ $\frac{1}{2} = \underline{\quad} = \underline{\quad}\%$ $\frac{3}{10} = 0.3 = \underline{\quad}\%$	

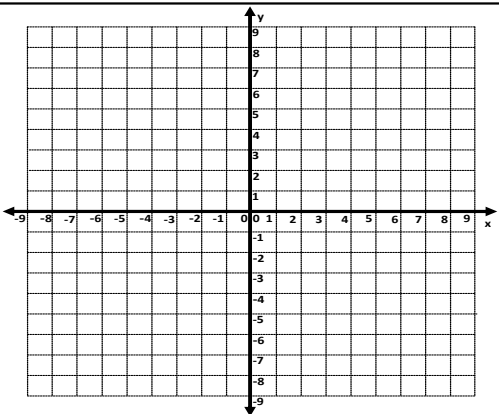
Sixth Grade Builder # 5

Name: _____

Multiply Integers	$-3 \cdot (-4) \cdot 2 = \underline{\hspace{2cm}}$ $-5 \times 9 = \underline{\hspace{2cm}}$ $2(-4)(-2) = \underline{\hspace{2cm}}$ $4 \cdot (-8) \cdot (-2) = \underline{\hspace{2cm}}$ $-8 \times (-6) = \underline{\hspace{2cm}}$ $3(-2)(2) = \underline{\hspace{2cm}}$ $-3 \cdot (-10) \cdot 1 = \underline{\hspace{2cm}}$ $-2 \times (-9) = \underline{\hspace{2cm}}$ $2(-5)(3) = \underline{\hspace{2cm}}$			<p>Integer Rules $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.</p>																		
Computation	$\begin{array}{r} 125 \\ \times 22 \\ \hline \end{array}$	$\frac{26}{2}$	$15.75 + 1.28$	$\begin{array}{r} 3.25 \\ - 2.17 \\ \hline \end{array}$	<p>Change the fraction to a decimal with division.</p> $\frac{1}{8} \quad 8 \overline{)1.000}$																	
Order of Operations	<p>GEMDAS $2^2 + 3 - 6$ $3^2 \cdot 2 \div 6$ $3 + 7 - (6 + 3)$</p>																					
Evaluate Expressions	<p>Evaluate the following expressions when $x = 3$.</p> $x + 7$ $6 + 3 + x$ $3 + 2 - x$ $x + 9 - 6$																					
Vocabulary	power integers base exponent order of operations evaluate	The natural numbers, their opposites and zero....- 3, -2, -1, 0, 1, 2, 3,... _____ To find the value of an expression. _____ Great Educators Make Doing Algebra Simple! _____ A raised number that represents repeated multiplication of a factor. _____ The number expressed using exponents. _____ The _____ is the factor in exponential form .																				
Multiple Representations		<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>x</th> <th>Process</th> <th>y</th> </tr> </thead> <tbody> <tr> <td></td> <td>$y = x + 3$</td> <td></td> </tr> <tr> <td>2</td> <td>$y = 2 + 3$</td> <td>5</td> </tr> <tr> <td>3</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> </tr> </tbody> </table>	x	Process	y		$y = x + 3$		2	$y = 2 + 3$	5	3			4			5			<p>Fill in the table and graph the points. Connect the points to draw a line.</p> $y = x + 3$ $y = 2 + 3$ $y = 5$	
x	Process	y																				
	$y = x + 3$																					
2	$y = 2 + 3$	5																				
3																						
4																						
5																						
FDP	<table style="width: 100%; text-align: center;"> <tr> <td>$\frac{2}{5} = 0.4 = \underline{\hspace{1cm}}\%$</td> <td>$\frac{2}{10} = 0.2 = \underline{\hspace{1cm}}\%$</td> <td>$\frac{3}{5} = 0.6 = \underline{\hspace{1cm}}\%$</td> <td>$\frac{3}{10} = 0.3 = \underline{\hspace{1cm}}\%$</td> </tr> <tr> <td>$\frac{1}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$</td> <td>$\frac{1}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$</td> <td>$\frac{1}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$</td> <td>$\frac{2}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$</td> </tr> <tr> <td>$\frac{\hspace{1cm}}{5} = \underline{\hspace{1cm}} = 60\%$</td> <td>$\frac{\hspace{1cm}}{10} = \underline{\hspace{1cm}} = 20\%$</td> <td>$\frac{\hspace{1cm}}{5} = \underline{\hspace{1cm}} = 40\%$</td> <td>$\frac{\hspace{1cm}}{10} = \underline{\hspace{1cm}} = 30\%$</td> </tr> </table>				$\frac{2}{5} = 0.4 = \underline{\hspace{1cm}}\%$	$\frac{2}{10} = 0.2 = \underline{\hspace{1cm}}\%$	$\frac{3}{5} = 0.6 = \underline{\hspace{1cm}}\%$	$\frac{3}{10} = 0.3 = \underline{\hspace{1cm}}\%$	$\frac{1}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{1}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{1}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{2}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{\hspace{1cm}}{5} = \underline{\hspace{1cm}} = 60\%$	$\frac{\hspace{1cm}}{10} = \underline{\hspace{1cm}} = 20\%$	$\frac{\hspace{1cm}}{5} = \underline{\hspace{1cm}} = 40\%$	$\frac{\hspace{1cm}}{10} = \underline{\hspace{1cm}} = 30\%$						
$\frac{2}{5} = 0.4 = \underline{\hspace{1cm}}\%$	$\frac{2}{10} = 0.2 = \underline{\hspace{1cm}}\%$	$\frac{3}{5} = 0.6 = \underline{\hspace{1cm}}\%$	$\frac{3}{10} = 0.3 = \underline{\hspace{1cm}}\%$																			
$\frac{1}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{1}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{1}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$	$\frac{2}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$																			
$\frac{\hspace{1cm}}{5} = \underline{\hspace{1cm}} = 60\%$	$\frac{\hspace{1cm}}{10} = \underline{\hspace{1cm}} = 20\%$	$\frac{\hspace{1cm}}{5} = \underline{\hspace{1cm}} = 40\%$	$\frac{\hspace{1cm}}{10} = \underline{\hspace{1cm}} = 30\%$																			

Sixth Grade Builder # 6

Name: _____

Multiply Integers	$-5 \cdot (-4) \cdot 2 = \underline{\hspace{2cm}}$ $4 \cdot (-6) \cdot (-2) = \underline{\hspace{2cm}}$ $-6 \cdot (-10) \cdot 1 = \underline{\hspace{2cm}}$	$-2 \times 10 = \underline{\hspace{2cm}}$ $-9 \times (-5) = \underline{\hspace{2cm}}$ $-2 \times (-33) = \underline{\hspace{2cm}}$	$2(-12)(-1) = \underline{\hspace{2cm}}$ $-6(-2)(3) = \underline{\hspace{2cm}}$ $2(-4)(8) = \underline{\hspace{2cm}}$	Integer Rules $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.																		
Computation	$\begin{array}{r} 125 \\ \times 62 \\ \hline \end{array}$	$\frac{242}{22}$	$15 - 1.28$	$\begin{array}{r} 6 \\ - 2.27 \\ \hline \end{array}$	Change the fraction to a decimal with division. $\frac{2}{5}$ $5 \overline{)2.0}$																	
Order of Operations	GEMDAS $2^3 + 7 - 6$ $3^3 \cdot 2 \div 6$ $3 + 7 + 6 \cdot 3^2$																					
Vocabulary	power integers base exponent order of operations evaluate	A raised number that represents repeated multiplication of a factor. _____ GEMDAS _____ The number expressed using exponents. _____ The _____ is the factor in exponential form. The natural numbers, their opposites and zero.... - 3, -2, -1, 0, 1, 2, 3,... _____ To find the value of an expression. _____																				
Evaluate Expressions	Evaluate the following expressions when $x = 5$. $x + 5$ $5 + 3 + x$ $3 + 7 - x$ $x + 10 - 6$																					
Multiple Representations		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>Process</th> <th>y</th> </tr> </thead> <tbody> <tr> <td></td> <td>$y = x + 4$</td> <td></td> </tr> <tr> <td>1</td> <td>$y = \quad + 4$</td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> </tr> </tbody> </table>	x	Process	y		$y = x + 4$		1	$y = \quad + 4$		3			5			7			Fill in the table and graph the points. Connect the points to draw a line. $y = x + 4$ $y = 1 + 4$ $y =$ <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> (x, y) ordered pair (1,) </div> <div style="text-align: center;"> ordered pair (,) </div> </div> <hr/> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> ordered pair (,) </div> <div style="text-align: center;"> ordered pair (,) </div> </div>	
x	Process	y																				
	$y = x + 4$																					
1	$y = \quad + 4$																					
3																						
5																						
7																						
FDP	$\frac{2}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{3}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{2}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{3}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\underline{\hspace{1cm}} = 0.6 = \underline{\hspace{1cm}}\%$ $\underline{\hspace{1cm}} = 0.4 = \underline{\hspace{1cm}}\%$ $\underline{\hspace{1cm}} = 0.3 = \underline{\hspace{1cm}}\%$ $\underline{\hspace{1cm}} = 0.2 = \underline{\hspace{1cm}}\%$ $\frac{1}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{1}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{1}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{2}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$																					

Divide Integers	$-8 \div (-4) = \underline{\hspace{2cm}}$ $\frac{12}{-3} = \underline{\hspace{2cm}}$ $-24 \div (-6) = \underline{\hspace{2cm}}$	$\frac{15}{-3} = \underline{\hspace{2cm}}$ $-28 \div (-4) = \underline{\hspace{2cm}}$ $\frac{36}{-6} = \underline{\hspace{2cm}}$	$45 \div (-9) = \underline{\hspace{2cm}}$ $48 \div 6 = \underline{\hspace{2cm}}$ $27 \div (-3) = \underline{\hspace{2cm}}$	Integer Rules $(+) \div (-) = -$ $(-) \div (+) = -$ $(-) \div (-) = +$ $(+) \div (+) = +$ Memorize the rules.																
Computation	$24 \overline{)468}$	$4 \frac{1}{3} + \frac{1}{3}$	$4 \frac{3}{4} + \frac{1}{4}$	$\begin{array}{r} 256 \\ \times 24 \\ \hline \end{array}$	Change the fraction to a decimal with division. $\frac{3}{8} \quad 8 \overline{)3.000}$															
Prime Factorization	Prime Factor the following numbers, write the final answer using exponents. $6 \wedge$ $8 \wedge$ $15 \wedge$			Order of Operations	$2^3 + (24 \div 6) \times 3$															
Vocabulary	factor ratio common factor prime factorization GCF LCM	The largest number that divides two or more numbers evenly. _____ The smallest nonzero number that is a multiple of two or more numbers. _____ A number that is multiplied by another number to get a product. _____ A factor of two or more numbers. _____ Finding the factors of a number that are all prime. _____ A comparison of two numbers or variables that can be written in fraction form. _____																		
Evaluate Expressions	Evaluate the following expressions when $x = 2$ $2x + (2 - x) + 6$ $7 - (6 - x) + 3x$		CF and GCF	Find the common factors and GCF. 12- _____ 48- _____ CF- _____ GCF- _____																
Multiple Representations		<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>x</th> <th>Process $y = 10 - 3x$</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> </tr> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> </tr> </tbody> </table>	x	Process $y = 10 - 3x$	y	0			1			2			3			Fill in the table and graph the points. Connect the points to draw a line. 		
x	Process $y = 10 - 3x$	y																		
0																				
1																				
2																				
3																				
FDP	$\frac{1}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{2}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{3}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{4}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{5}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{1}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{2}{2} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{1}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{2}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{4}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$ $\frac{5}{5} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$																			

KEYS

ALGEBRA READINESS

BUILDERS

Sixth Grade Math

Multiply Integers	$2 \cdot 3 = 6$ $3 \cdot (-5) = -15$ $-4 \cdot (-2) = 8$	$-2 \times 4 = -8$ $-5 \times (-8) = 40$ $-3 \times (-5) = 15$	$2(-5) = -10$ $2(-6) = -12$ $12(3) = 36$	Integer Rules $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.												
Computation	$\begin{array}{r} 1 \\ 23 \\ \times 36 \\ \hline 138 \\ + 690 \\ \hline 828 \end{array}$	$\begin{array}{r} \$ 6.30 \\ 2 \overline{) \$ 12.60} \\ \underline{-12} \\ 06 \\ \underline{-6} \\ 00 \\ \underline{-0} \\ 0 \end{array}$	$\begin{array}{r} 1 \\ 4.67 \\ + 0.23 \\ \hline 4.90 \end{array}$	Change the fraction to a decimal with division. $\frac{1}{2} = \frac{0.5}{1.0} = 0.5$												
Order of Operations	<p style="text-align: center;">Great Educators Make Doing Algebra Simple!</p> <p>Grouping Symbols Exponent Multiply-Divide (left to right) first then Add-Subtract (left to right)</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">$9 - 7 + 5$</td> <td style="text-align: center;">$20 - 4 \div 2$</td> <td style="text-align: center;">$6 + 6 \div 6$</td> <td style="text-align: center;">$8 + 10 - 3$</td> </tr> <tr> <td style="text-align: center;">$2 + 5$</td> <td style="text-align: center;">$20 - 2$</td> <td style="text-align: center;">$6 + 1$</td> <td style="text-align: center;">$18 - 3$</td> </tr> <tr> <td style="text-align: center;">7</td> <td style="text-align: center;">18</td> <td style="text-align: center;">7</td> <td style="text-align: center;">15</td> </tr> </table>				$9 - 7 + 5$	$20 - 4 \div 2$	$6 + 6 \div 6$	$8 + 10 - 3$	$2 + 5$	$20 - 2$	$6 + 1$	$18 - 3$	7	18	7	15
$9 - 7 + 5$	$20 - 4 \div 2$	$6 + 6 \div 6$	$8 + 10 - 3$													
$2 + 5$	$20 - 2$	$6 + 1$	$18 - 3$													
7	18	7	15													
Powers/Bases Exponents	3^2 base ^{exponent} 3×3 9	4^2 4×4 16	5^2 5×5 25	6^2 6×6 36												
Vocabulary	<p>power integers base exponent order of operations evaluate</p> <p>The base is the factor in exponential form.</p> <p>Great Educators Make Doing Algebra Simple! order of operations</p> <p>The natural numbers, their opposites, and zero ... - 3, -2, -1, 0, 1, 2, 3, ... integers</p> <p>The number expressed using exponents. power</p> <p>A raised number that represents repeated multiplication of a factor. exponent</p> <p>To find the value of an expression. evaluate</p>															
FDP	$\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{2} = 0.5 = 50\%$	$\frac{1}{5} = 0.2 = 20\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{1}{5} = 0.2 = 20\%$	$\frac{1}{10} = 0.1 = 10\%$ $\frac{1}{10} = 0.1 = 10\%$ $\frac{1}{10} = 0.1 = 10\%$	$\frac{2}{2} = 1.0 = 100\%$ $\frac{2}{2} = 1.0 = 100\%$ $\frac{2}{2} = 1.0 = 100\%$												

Sixth Grade Builder #2

Name: _____

Multiply Integers	$3 \cdot 4 = 12$ $5 \cdot (-4) = -20$ $-4 \cdot (-6) = 24$	$-5 \times 6 = -30$ $-7 \times (-3) = 21$ $-3 \times (-6) = 18$	$2(-6) = -12$ $3(-6) = -18$ $10(3) = 30$	<p>Integer Rules</p> <p>(+)(-) = - (-)(+) = - (-)(-) = +</p> <p>(+)(+) = + Memorize the rules, they are the same for division.</p>												
Computation	$\begin{array}{r} 1 \\ 13 \\ \times 14 \\ \hline 52 \\ +130 \\ \hline 182 \end{array}$	$\begin{array}{r} 6.20 \\ 4 \overline{) \$24.80} \\ \underline{-24} \\ 08 \\ \underline{-8} \\ 00 \\ \underline{-0} \\ 0 \end{array}$	$\begin{array}{r} 3.22 \\ + 0.14 \\ \hline 3.36 \end{array}$	$\begin{array}{r} 0.17 \\ - 0.13 \\ \hline 0.04 \end{array}$	<p>Change the fraction to a decimal with division.</p> $\frac{1}{5} = \frac{0.2}{1.0} = 0.2$											
Order of Operations	<p style="text-align: center;">Great Educators Make Doing Algebra Simple!</p> <p>GEMDAS Grouping Symbols Exponent Multiply-Divide (left to right) first then Add-Subtract (left to right)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">$10 - 6 + 5$</td> <td style="width: 25%; text-align: center;">$40 - 12 \div 6$</td> <td style="width: 25%; text-align: center;">$5 + 5 \div 5$</td> <td style="width: 25%; text-align: center;">$8 + 12 - 6$</td> </tr> <tr> <td style="text-align: center;">$4 + 5$</td> <td style="text-align: center;">$40 - 2$</td> <td style="text-align: center;">$5 + 1$</td> <td style="text-align: center;">$20 - 6$</td> </tr> <tr> <td style="text-align: center;">9</td> <td style="text-align: center;">38</td> <td style="text-align: center;">6</td> <td style="text-align: center;">14</td> </tr> </table>				$10 - 6 + 5$	$40 - 12 \div 6$	$5 + 5 \div 5$	$8 + 12 - 6$	$4 + 5$	$40 - 2$	$5 + 1$	$20 - 6$	9	38	6	14
$10 - 6 + 5$	$40 - 12 \div 6$	$5 + 5 \div 5$	$8 + 12 - 6$													
$4 + 5$	$40 - 2$	$5 + 1$	$20 - 6$													
9	38	6	14													
Powers/Bases Exponents	$8 \times 8 \times 8$ 8^3	9^2 9×9 81	$10 \times 10 \times 10$ 10^3	11^2 11×11 121	$12 \times 12 \times 12$ 12^3											
Vocabulary	<p>power integers base exponent order of operations evaluate</p>	<p>The number expressed using exponents. power</p> <p>The natural numbers, their opposites, and zero ... - 3, -2, -1, 0, 1, 2, 3, ... integers</p> <p>A raised number that represents repeated multiplication of a factor. exponent</p> <p>Grouping symbols Exponents Multiply Divide Add Subtract order of operations</p> <p>To find the value of an expression. evaluate</p> <p>The base is the factor in exponential form .</p>														
FDP	$\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{2} = 0.5 = 50\%$	$\frac{1}{5} = 0.2 = 20\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{1}{5} = 0.2 = 20\%$	$\frac{1}{10} = 0.1 = 10\%$ $\frac{1}{10} = 0.1 = 10\%$ $\frac{1}{10} = 0.1 = 10\%$	$\frac{2}{2} = 1.0 = 100\%$ $\frac{2}{2} = 1.0 = 100\%$ $\frac{2}{2} = 1.0 = 100\%$												

Sixth Grade Builder # 3

Name: _____

Multiply Integers	$-6 \cdot 4 = -24$ $-5 \cdot (-8) = 40$ $-3 \cdot 7 = -21$	$-5 \times 8 = -40$ $-6 \times (-6) = 36$ $-4 \times (-6) = 24$	$7(-8) = -56$ $9(-4) = -36$ $11(-9) = -99$	<p>Integer Rules</p> <p>(+)(-) = - (-)(+) = - (-)(-) = +</p> <p>(+)(+) = + Memorize the rules, they are the same for division.</p>				
Computation	$\begin{array}{r} 12 \\ 66 \\ \times 24 \\ \hline 264 \\ + 1320 \\ \hline 1,584 \end{array}$	$\begin{array}{r} \$11.30 \\ 3 \overline{) \$33.90} \\ \underline{-3} \\ 03 \\ \underline{-3} \\ 09 \\ \underline{-9} \\ 00 \\ \underline{-0} \\ 0 \end{array}$	$\begin{array}{r} 1 \\ 4.25 \\ + 0.16 \\ \hline 4.41 \end{array}$	<p>Change the fraction to a decimal with division.</p> $\begin{array}{r} 1 \\ 10 \overline{) 1.0} \\ \underline{10} \\ 0 \end{array}$ <p>$\frac{1}{10} = 0.1$</p>				
Order of Operations	<p style="text-align: center;">Great Educators Make Doing Algebra Simple!</p> <p>Grouping Symbols Exponent Multiply-Divide (left to right) first then Add-Subtract (left to right)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; text-align: center;">$10 \times 6 + 5$ $60 + 5$ 65</td> <td style="width: 25%; text-align: center;">$2 \times 12 \div 6$ $24 \div 6$ 4</td> <td style="width: 25%; text-align: center;">$8 + 5 \times 5$ $8 + 25$ 33</td> <td style="width: 25%; text-align: center;">$12 \div 2 - 6$ $6 - 6$ 0</td> </tr> </table>				$10 \times 6 + 5$ $60 + 5$ 65	$2 \times 12 \div 6$ $24 \div 6$ 4	$8 + 5 \times 5$ $8 + 25$ 33	$12 \div 2 - 6$ $6 - 6$ 0
$10 \times 6 + 5$ $60 + 5$ 65	$2 \times 12 \div 6$ $24 \div 6$ 4	$8 + 5 \times 5$ $8 + 25$ 33	$12 \div 2 - 6$ $6 - 6$ 0					
Powers/Bases Exponents	$2 \times 2 \times 2 \times 2$ 2^4	2^3 $2 \times 2 \times 2$ 4×2 8	$5 \times 5 \times 5 \times 5$ 5^4	7^2 7×7 49 $7 \times 7 \times 7 \times 7$ 7^4				
Vocabulary	<p>power integers base exponent order of operations evaluate</p>	<p>To find the value of an expression. evaluate</p> <p>A raised number that represents repeated multiplication of a factor. exponent</p> <p>The base is the factor in exponential form .</p> <p>GEMDAS order of operations</p> <p>The number expressed using exponents. power</p> <p>The natural numbers, their opposites and zero. ...- 3, -2, -1, 0, 1, 2, 3,... integers</p>						
FDP	$\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{2} = 0.5 = 50\%$	$\frac{1}{5} = 0.2 = 20\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{1}{5} = 0.2 = 20\%$	$\frac{1}{10} = 0.1 = 10\%$ $\frac{1}{10} = 0.1 = 10\%$ $\frac{1}{10} = 0.1 = 10\%$	$\frac{2}{2} = 1.0 = 100\%$ $\frac{2}{2} = 1.0 = 100\%$ $\frac{2}{2} = 1.0 = 100\%$				

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Multiply Integers</p>	$-3 \cdot (-4) = 12$ $4 \cdot (-8) = -32$ $-3 \cdot (-10) = 30$	$-3 \times 2 = -6$ $-5 \times (-7) = 35$ $-3 \times (-8) = 24$	$8(-8) = -64$ $9(-9) = -81$ $12(-5) = -60$	<p>Integer Rules</p> <p>(+)(-) = - (-)(+) = - (-)(-) = +</p> <p>(+)(+) = + Memorize the rules, they are the same for division.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Computation</p>	$\begin{array}{r} 123 \\ \times 3 \\ \hline 369 \end{array}$	$10 \overline{) \$40.00}$ $\begin{array}{r} \$4.00 \\ -40 \\ \hline 00 \\ -0 \\ \hline 00 \\ -0 \\ \hline 0 \end{array}$	$\begin{array}{r} 11 \\ 8.75 \\ + 0.28 \\ \hline 9.03 \end{array}$	$\begin{array}{r} 115 \\ 3.25 \\ - 0.17 \\ \hline 3.08 \end{array}$	<p>Change the fraction to a decimal with division.</p> $\begin{array}{r} 0.25 \\ 4 \overline{) 1.00} \\ -8 \\ \hline 20 \\ -20 \\ \hline 0 \end{array}$ <p>$\frac{1}{4} = 0.25$</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Order of Operations</p>	<p>Great Educators Make Doing Algebra Simple!</p>				
	<p>GEMDAS Grouping Symbols Exponent Multiply-Divide (left to right) first then Add-Subtract (left to right)</p>				
	$2 \times 6 + 5$ $12 + 5$ 17	$2 \times 12 \div 6$ $24 \div 6$ 4	$8 + 5 \times 5 - 3$ $8 + 25 - 3$ $33 - 3$ 30	$12 \div 2^2 - 3$ $12 \div 4 - 3$ $3 - 3$ 0	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Powers/Bases Exponents</p>	$2 \times 2 \times 2 \times 2 \times 2$ 2^5	3^3 $3 \times 3 \times 3$ 9×3 27	5×5 5^2	9^2 9×9 81	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Vocabulary</p>	<p>power integers base exponent order of operations evaluate</p>	<p>The natural numbers, their opposites and zero....- 3, -2, -1, 0, 1, 2, 3,... integers</p> <p>To find the value of an expression. evaluate</p> <p>Grouping symbols Exponents Multiply Divide Add Subtract order of operations</p> <p>A raised number that represents repeated multiplication of a factor. exponent</p> <p>The number expressed using exponents. power</p> <p>The base is the factor in exponential form .</p>			
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">FDP</p>	$\frac{1}{2} = 0.5 = 50\%$ $\frac{1}{10} = 0.1 = 10\%$ $\frac{2}{5} = 0.4 = 40\%$	$\frac{1}{5} = 0.2 = 20\%$ $\frac{2}{2} = 1.0 = 100\%$ $\frac{2}{10} = 0.2 = 20\%$	$\frac{1}{10} = 0.1 = 10\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{3}{5} = 0.6 = 60\%$	$\frac{2}{2} = 1.0 = 100\%$ $\frac{1}{2} = 0.5 = 50\%$ $\frac{3}{10} = 0.3 = 30\%$	

Sixth Grade Builder # 5

Name: _____

Multiply Integers	$-3 \cdot (-4) \cdot 2 = 24$ $4 \cdot (-8) \cdot (-2) = 64$ $-3 \cdot (-10) \cdot 1 = 30$	$-5 \times 9 = -45$ $-8 \times (-6) = 48$ $-2 \times (-9) = 18$	$2(-4)(-2) = 16$ $3(-2)(2) = -12$ $2(-5)(3) = -30$	<p>Integer Rules</p> <p>(+)(-) = - (-)(+) = - (-)(-) = + (+)(+) = +</p> <p>Memorize the rules, they are the same for division.</p>																												
Computation	$\begin{array}{r} 125 \\ \times 22 \\ \hline 250 \\ + 2500 \\ \hline 2,750 \end{array}$	$\begin{array}{r} 26 \\ 2 \overline{) 26} \\ \underline{2} \\ 06 \\ \underline{06} \\ 0 \end{array}$	$\begin{array}{r} 15.75 + 1.28 \\ 11 \\ 15.75 \\ + 1.28 \\ \hline 17.03 \end{array}$	<p>Change the fraction to a decimal with division.</p> $\begin{array}{r} 0.125 \\ 8 \overline{) 1.000} \\ \underline{-8} \\ 20 \\ \underline{-16} \\ 40 \\ \underline{-40} \\ 0 \end{array}$ <p>$\frac{1}{8} = 0.125$</p>																												
Order of Operations	<p>GEMDAS</p> $\begin{array}{l} 2^2 + 3 - 6 \\ 4 + 3 - 6 \\ 7 - 6 \\ 1 \end{array}$	$\begin{array}{l} 3^2 \cdot 2 \div 6 \\ 9 \cdot 2 \div 6 \\ 18 \div 6 \\ 3 \end{array}$	$\begin{array}{l} 3 + 7 - (6 + 3) \\ 3 + 7 - 9 \\ 10 - 9 \\ 1 \end{array}$																													
Evaluate Expressions	<p>Evaluate the following expressions when $x = 3$.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 25%;">$x + 7$ $3 + 7$ 10</td> <td style="width: 25%;">$6 + 3 + x$ $6 + 3 + 3$ $9 + 3$ 12</td> <td style="width: 25%;">$3 + 2 - x$ $3 + 2 - 3$ $5 - 3$ 2</td> <td style="width: 25%;">$x + 9 - 6$ $3 + 9 - 6$ $12 - 6$ 6</td> </tr> </table>				$x + 7$ $3 + 7$ 10	$6 + 3 + x$ $6 + 3 + 3$ $9 + 3$ 12	$3 + 2 - x$ $3 + 2 - 3$ $5 - 3$ 2	$x + 9 - 6$ $3 + 9 - 6$ $12 - 6$ 6																								
$x + 7$ $3 + 7$ 10	$6 + 3 + x$ $6 + 3 + 3$ $9 + 3$ 12	$3 + 2 - x$ $3 + 2 - 3$ $5 - 3$ 2	$x + 9 - 6$ $3 + 9 - 6$ $12 - 6$ 6																													
Vocabulary	<p>power integers base exponent order of operations evaluate</p>	<p>The natural numbers, their opposites and zero....- 3, -2, -1, 0, 1, 2, 3,... integers</p> <p>To find the value of an expression. evaluate</p> <p>Great Educators Make Doing Algebra Simple! order of operations</p> <p>A raised number that represents repeated multiplication of a factor. exponent</p> <p>The number expressed using exponents. power</p> <p>The base is the factor in exponential form .</p>																														
Multiple Representations		<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>x</th> <th>Process</th> <th>y</th> </tr> </thead> <tbody> <tr> <td></td> <td>$y = x + 3$</td> <td></td> </tr> <tr> <td>2</td> <td>$y = 2 + 3$</td> <td>5</td> </tr> <tr> <td>3</td> <td>$y = 3 + 3$</td> <td>6</td> </tr> <tr> <td>4</td> <td>$y = 4 + 3$</td> <td>7</td> </tr> <tr> <td>5</td> <td>$y = 5 + 3$</td> <td>8</td> </tr> </tbody> </table>	x	Process	y		$y = x + 3$		2	$y = 2 + 3$	5	3	$y = 3 + 3$	6	4	$y = 4 + 3$	7	5	$y = 5 + 3$	8	<p>Fill in the table and graph the points. Connect the points to draw a line.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">$y = x + 3$ $y = 2 + 3$ $y = 5$</td> <td style="width: 50%;">$y = x + 3$ $y = 3 + 3$ $y = 6$</td> </tr> <tr> <td style="text-align: center;">(x, y)</td> <td></td> </tr> <tr> <td>ordered pair (2 , 5)</td> <td>ordered pair (3 , 6)</td> </tr> <tr> <td>$y = x + 3$ $y = 4 + 3$ $y = 7$</td> <td>$y = x + 3$ $y = 5 + 3$ $y = 8$</td> </tr> <tr> <td>ordered pair (4 , 7)</td> <td>ordered pair (5 , 8)</td> </tr> </table>		$y = x + 3$ $y = 2 + 3$ $y = 5$	$y = x + 3$ $y = 3 + 3$ $y = 6$	(x, y)		ordered pair (2 , 5)	ordered pair (3 , 6)	$y = x + 3$ $y = 4 + 3$ $y = 7$	$y = x + 3$ $y = 5 + 3$ $y = 8$	ordered pair (4 , 7)	ordered pair (5 , 8)
x	Process	y																														
	$y = x + 3$																															
2	$y = 2 + 3$	5																														
3	$y = 3 + 3$	6																														
4	$y = 4 + 3$	7																														
5	$y = 5 + 3$	8																														
$y = x + 3$ $y = 2 + 3$ $y = 5$	$y = x + 3$ $y = 3 + 3$ $y = 6$																															
(x, y)																																
ordered pair (2 , 5)	ordered pair (3 , 6)																															
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ordered pair (4 , 7)	ordered pair (5 , 8)																															
FDP	<table border="0" style="width: 100%;"> <tr> <td style="width: 25%;">$\frac{2}{5} = 0.4 = 40\%$</td> <td style="width: 25%;">$\frac{2}{10} = 0.2 = 20\%$</td> <td style="width: 25%;">$\frac{3}{5} = 0.6 = 60\%$</td> <td style="width: 25%;">$\frac{3}{10} = 0.3 = 30\%$</td> </tr> <tr> <td>$\frac{1}{2} = 0.5 = 50\%$</td> <td>$\frac{1}{5} = 0.2 = 20\%$</td> <td>$\frac{1}{10} = 0.1 = 10\%$</td> <td>$\frac{2}{2} = 1.0 = 100\%$</td> </tr> <tr> <td>$\frac{3}{5} = 0.6 = 60\%$</td> <td>$\frac{2}{10} = 0.2 = 20\%$</td> <td>$\frac{2}{5} = 0.4 = 40\%$</td> <td>$\frac{3}{10} = 0.3 = 30\%$</td> </tr> </table>				$\frac{2}{5} = 0.4 = 40\%$	$\frac{2}{10} = 0.2 = 20\%$	$\frac{3}{5} = 0.6 = 60\%$	$\frac{3}{10} = 0.3 = 30\%$	$\frac{1}{2} = 0.5 = 50\%$	$\frac{1}{5} = 0.2 = 20\%$	$\frac{1}{10} = 0.1 = 10\%$	$\frac{2}{2} = 1.0 = 100\%$	$\frac{3}{5} = 0.6 = 60\%$	$\frac{2}{10} = 0.2 = 20\%$	$\frac{2}{5} = 0.4 = 40\%$	$\frac{3}{10} = 0.3 = 30\%$																
$\frac{2}{5} = 0.4 = 40\%$	$\frac{2}{10} = 0.2 = 20\%$	$\frac{3}{5} = 0.6 = 60\%$	$\frac{3}{10} = 0.3 = 30\%$																													
$\frac{1}{2} = 0.5 = 50\%$	$\frac{1}{5} = 0.2 = 20\%$	$\frac{1}{10} = 0.1 = 10\%$	$\frac{2}{2} = 1.0 = 100\%$																													
$\frac{3}{5} = 0.6 = 60\%$	$\frac{2}{10} = 0.2 = 20\%$	$\frac{2}{5} = 0.4 = 40\%$	$\frac{3}{10} = 0.3 = 30\%$																													

Sixth Grade Builder # 6

Name: _____

Multiply Integers	$-5 \cdot (-4) \cdot 2 = 40$ $4 \cdot (-6) \cdot (-2) = 48$ $-6 \cdot (-10) \cdot 1 = 60$	$-2 \times 10 = -20$ $-9 \times (-5) = 45$ $-2 \times (-33) = 66$	$2(-12)(-1) = 24$ $-6(-2)(3) = 36$ $2(-4)(8) = -64$	Integer Rules $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.																		
Computation	$\begin{array}{r} 125 \\ \times 62 \\ \hline 250 \\ +7500 \\ \hline 7,750 \end{array}$	$\begin{array}{r} 242 \\ 22 \overline{)242} \\ \underline{-22} \\ 22 \\ \underline{-22} \\ 0 \end{array}$	$\begin{array}{r} 15 - 1.28 \\ \underline{4.910} \\ 15.00 \\ \underline{-1.28} \\ 13.72 \end{array}$	Change the fraction to a decimal with division. $\begin{array}{r} 2 \\ 5 \overline{)2.0} \\ \underline{-20} \\ 0 \end{array}$ $\frac{2}{5} = 0.4$																		
Order of Operations	GEMDAS $2^3 + 7 - 6 = 8 + 7 - 6 = 15 - 6 = 9$ $3^3 \cdot 2 \div 6 = 27 \cdot 2 \div 6 = 54 \div 6 = 9$			$3 + 7 + 6 \cdot 3^2 = 3 + 7 + 6 \cdot 9 = 3 + 7 + 54 = 10 + 54 = 64$																		
Vocabulary	power integers base exponent order of operations evaluate	A raised number that represents repeated multiplication of a factor. exponent GEMDAS order of operations The number expressed using exponents. power The base is the factor in exponential form. The natural numbers, their opposites and zero....- 3, -2, -1, 0, 1, 2, 3,... integers To find the value of an expression. evaluate																				
Evaluate Expressions	Evaluate the following expressions when $x = 5$. $x + 5 = 5 + 5 = 10$ $5 + 3 + x = 5 + 3 + 5 = 8 + 5 = 13$ $3 + 7 - x = 3 + 7 - 5 = 10 - 5 = 5$ $x + 10 - 6 = 5 + 10 - 6 = 15 - 6 = 9$																					
Multiple Representations		<table border="1"> <thead> <tr> <th>x</th> <th>Process</th> <th>y</th> </tr> </thead> <tbody> <tr> <td></td> <td>$y = x + 4$</td> <td></td> </tr> <tr> <td>1</td> <td>$y = 1 + 4$</td> <td>5</td> </tr> <tr> <td>3</td> <td>$y = 3 + 4$</td> <td>7</td> </tr> <tr> <td>5</td> <td>$y = 5 + 4$</td> <td>9</td> </tr> <tr> <td>7</td> <td>$y = 7 + 4$</td> <td>11</td> </tr> </tbody> </table>	x	Process	y		$y = x + 4$		1	$y = 1 + 4$	5	3	$y = 3 + 4$	7	5	$y = 5 + 4$	9	7	$y = 7 + 4$	11	Fill in the table and graph the points. Connect the points to draw a line. $y = x + 4$ $y = 1 + 4$ $y = 5$ ordered pair (1 , 5) $y = x + 4$ $y = 3 + 4$ $y = 7$ ordered pair (3 , 7) $y = x + 4$ $y = 5 + 4$ $y = 9$ ordered pair (5 , 9) $y = x + 4$ $y = 7 + 4$ $y = 11$ ordered pair (7 , 11)	
x	Process	y																				
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7	$y = 7 + 4$	11																				
FDP	$\frac{2}{10} = 0.2 = 20\%$ $\frac{3}{5} = 0.6 = 60\%$ $\frac{1}{2} = 0.5 = 50\%$ $\frac{3}{10} = 0.3 = 30\%$ $\frac{2}{5} = 0.4 = 40\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{2}{5} = 0.4 = 40\%$ $\frac{3}{10} = 0.3 = 30\%$ $\frac{1}{10} = 0.1 = 10\%$ $\frac{3}{5} = 0.6 = 60\%$ $\frac{1}{5} = 0.2 = 20\%$ $\frac{2}{2} = 1.0 = 100\%$																					

Sixth Grade Builder # 7

Name: _____

Multiply Integers	$-3 \cdot (-4) \cdot 2 = 24$ $-2 \cdot (-2) \cdot (-2) = -8$ $-1 \cdot (-10) \cdot 1 = 10$	$-2 \times 12 = -24$ $-9 \times (-9) = 81$ $-3 \times (-33) = 99$	$2(-11)(-2) = 44$ $-6(-1)(9) = 54$ $2(-3)(7) = -42$	Integer Rules $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.																							
Computation	$\begin{array}{r} 1\ 2\ 1 \\ 325 \\ \times 52 \\ \hline 650 \\ + 16250 \\ \hline 16,900 \end{array}$	$\begin{array}{r} 1.06 \\ 21 \overline{) 22.26} \\ \underline{-21} \\ 12 \\ \underline{-0} \\ 126 \\ \underline{-126} \\ 0 \end{array}$	$\begin{array}{r} 20.000 \\ + 1.530 \\ \hline 21.530 \end{array}$	$\begin{array}{r} 3\ 9\ 9\ 10 \\ \cancel{4.000} \\ - 2.273 \\ \hline 1.727 \end{array}$ Change the fraction to a decimal with division. $\begin{array}{r} 0.6 \\ 5 \overline{) 3.0} \\ \underline{-3.0} \\ 0 \end{array}$ $\frac{3}{5} = 0.6$																							
Order of Operations	$2^3 + (7 - 6)$ $2^3 + 1$ $8 + 1$ 9	$3^3 \cdot 2 \div (8 - 6)$ $3^3 \cdot 2 \div 2$ $27 \cdot 2 \div 2$ $54 \div 2$ 27	$(2^2 - 3) + 7 - 6$ $(4 - 3) + 7 - 6$ $1 + 7 - 6$ $8 - 6$ 2																								
Vocabulary	power integers base exponent order of operations evaluate	The number expressed using exponents. power A raised number that represents repeated multiplication of a factor. exponent To find the value of an expression. evaluate The natural numbers, their opposites and zero....- 3, -2, -1, 0, 1, 2, 3,... integers The base is the factor in exponential form . Great Educators Make Doing Algebra Simple! order of operations																									
Evaluate Expressions	Evaluate the following expressions when $x = 6$. <table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">$2x$ $2(6)$ 12</td> <td style="width: 25%;">$8 + 3 - x$ $8 + 3 - 6$ $11 - 6$ 5</td> <td style="width: 25%;">$6 + 7 - 6 + x$ $6 + 7 - 6 + 6$ $13 - 6 + 6$ $7 + 6$ 13</td> <td style="width: 25%;">$5x$ $5(6)$ 30</td> </tr> </table>				$2x$ $2(6)$ 12	$8 + 3 - x$ $8 + 3 - 6$ $11 - 6$ 5	$6 + 7 - 6 + x$ $6 + 7 - 6 + 6$ $13 - 6 + 6$ $7 + 6$ 13	$5x$ $5(6)$ 30																			
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Multiple Representations		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">x</th> <th style="width: 40%;">Process $y = 5 + x$</th> <th style="width: 10%;">y</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>$y = 5 + 0$</td> <td>5</td> </tr> <tr> <td>1</td> <td>$y = 5 + 1$</td> <td>6</td> </tr> <tr> <td>2</td> <td>$y = 5 + 2$</td> <td>7</td> </tr> <tr> <td>3</td> <td>$y = 5 + 3$</td> <td>8</td> </tr> </tbody> </table>	x	Process $y = 5 + x$	y	0	$y = 5 + 0$	5	1	$y = 5 + 1$	6	2	$y = 5 + 2$	7	3	$y = 5 + 3$	8	Fill in the table and graph the points. Connect the points to draw a line. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> $y = 5 + x$ $y = 5 + 0$ $y = 5$ </td> <td style="width: 50%; border: none;"> $y = 5 + x$ $y = 5 + 1$ $y = 6$ </td> </tr> <tr> <td style="border: none;">ordered pair (0 , 5)</td> <td style="border: none;">ordered pair (1 , 6)</td> </tr> <tr> <td style="border: none;"> $y = 5 + x$ $y = 5 + 2$ $y = 7$ </td> <td style="border: none;"> $y = 5 + x$ $y = 5 + 3$ $y = 8$ </td> </tr> <tr> <td style="border: none;">ordered pair (2 , 7)</td> <td style="border: none;">ordered pair (3 , 8)</td> </tr> </table>		$y = 5 + x$ $y = 5 + 0$ $y = 5$	$y = 5 + x$ $y = 5 + 1$ $y = 6$	ordered pair (0 , 5)	ordered pair (1 , 6)	$y = 5 + x$ $y = 5 + 2$ $y = 7$	$y = 5 + x$ $y = 5 + 3$ $y = 8$	ordered pair (2 , 7)	ordered pair (3 , 8)
x	Process $y = 5 + x$	y																									
0	$y = 5 + 0$	5																									
1	$y = 5 + 1$	6																									
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FDP	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">$\frac{2}{10} = 0.2 = 20\%$</td> <td style="width: 25%;">$\frac{3}{10} = 0.3 = 30\%$</td> <td style="width: 25%;">$\frac{2}{5} = 0.4 = 40\%$</td> <td style="width: 25%;">$\frac{3}{5} = 0.6 = 60\%$</td> </tr> <tr> <td>$\frac{3}{5} = 0.6 = 60\%$</td> <td>$\frac{2}{5} = 0.4 = 40\%$</td> <td>$\frac{3}{10} = 0.3 = 30\%$</td> <td>$\frac{2}{10} = 0.2 = 20\%$</td> </tr> <tr> <td>$\frac{1}{2} = 0.5 = 50\%$</td> <td>$\frac{1}{5} = 0.2 = 20\%$</td> <td>$\frac{1}{10} = 0.1 = 10\%$</td> <td>$\frac{2}{2} = 1.0 = 100\%$</td> </tr> </table>				$\frac{2}{10} = 0.2 = 20\%$	$\frac{3}{10} = 0.3 = 30\%$	$\frac{2}{5} = 0.4 = 40\%$	$\frac{3}{5} = 0.6 = 60\%$	$\frac{3}{5} = 0.6 = 60\%$	$\frac{2}{5} = 0.4 = 40\%$	$\frac{3}{10} = 0.3 = 30\%$	$\frac{2}{10} = 0.2 = 20\%$	$\frac{1}{2} = 0.5 = 50\%$	$\frac{1}{5} = 0.2 = 20\%$	$\frac{1}{10} = 0.1 = 10\%$	$\frac{2}{2} = 1.0 = 100\%$											
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Sixth Grade Builder # 8

Name: _____

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Multiply Integers</p>	$-6 \cdot (-3) \cdot 4 = \mathbf{72}$ $-2 \cdot (-3) \cdot (-4) = \mathbf{-24}$ $-1 \cdot (-11) \cdot 1 = \mathbf{11}$	$-2 \times (-12) = \mathbf{24}$ $-8 \times (-7) = \mathbf{56}$ $-3 \times (-22) = \mathbf{66}$	$2(8)(-1) = \mathbf{-16}$ $-6(-5)(2) = \mathbf{60}$ $3(-2)(5) = \mathbf{-30}$	<p>Integer Rules $(+)(-) = -$ $(-)(+) = -$ $(-)(-) = +$ $(+)(+) = +$ Memorize the rules, they are the same for division.</p>																						
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Computation</p>	$\begin{array}{r} 37 \\ 2 \overline{) 37} \\ \underline{-2} \\ 17 \\ \underline{-16} \\ 1 \text{ remainder} \end{array}$ <p>divisor Remainders should be written as fractions. Remainder over Divisor</p>	$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$	$\frac{4}{8} + \frac{3}{8} = \frac{7}{8}$	$\begin{array}{r} 5.76 \\ -3.36 \\ \hline 2.40 \end{array}$	<p>Change the fraction to a decimal with division.</p> $\frac{4}{5} = 5 \overline{) 4.0}$ $\begin{array}{r} 0.8 \\ 5 \overline{) 4.0} \\ \underline{-4.0} \\ 0 \end{array}$ <p>$\frac{4}{5} = 0.8$</p>																					
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Order of Operations</p>	$5^2 + (25 - 6) = 5^2 + 19 = 25 + 19 = 44$			$4^2 \div (8 - 6) = 4^2 \div 2 = 16 \div 2 = 8$	$3^2 - 8 + (6 \cdot 1) = 3^2 - 8 + 6 = 9 - 8 + 6 = 1 + 6 = 7$																					
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Vocabulary</p>	<p>factor ratio common factor prime factorization greatest common factor (GCF) least common multiple (LCM)</p>	<p>The largest number that divides two or more numbers evenly. GCF A number that is multiplied by another number to get a product. factor A comparison of two numbers or variables that can be written in fraction form. ratio The smallest nonzero number that is a multiple of two or more numbers. LCM A factor of two or more numbers. common factor Finding the factors of a number that are all prime. prime factorization</p>																								
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$2(2) + 2$	$6 + 3 - 2$	$5 + 7 - 6 - 2$	$5(2) + 1$																							
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Multiple Representations</p>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>x</th> <th>Process $y = 2x$</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>$y = 2(0)$</td> <td>0</td> </tr> <tr> <td>1</td> <td>$y = 2(1)$</td> <td>2</td> </tr> <tr> <td>2</td> <td>$y = 2(2)$</td> <td>4</td> </tr> <tr> <td>3</td> <td>$y = 2(3)$</td> <td>6</td> </tr> </tbody> </table>	x	Process $y = 2x$	y	0	$y = 2(0)$	0	1	$y = 2(1)$	2	2	$y = 2(2)$	4	3	$y = 2(3)$	6	<p>Fill in the table and graph the points. Connect the points to draw a line.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border-right: 1px solid black;"> $y = 2x$ $y = 2(0)$ $y = 0$ </td> <td style="width: 50%;"> $y = 2x$ $y = 2(1)$ $y = 2$ </td> </tr> <tr> <td style="border-right: 1px solid black;">ordered pair (0 , 0)</td> <td>ordered pair (1 , 2)</td> </tr> <tr> <td style="border-right: 1px solid black;"> $y = 2x$ $y = 2(2)$ $y = 4$ </td> <td> $y = 2x$ $y = 2(3)$ $y = 6$ </td> </tr> <tr> <td style="border-right: 1px solid black;">ordered pair (2 , 4)</td> <td>ordered pair (3 , 6)</td> </tr> </table>	$y = 2x$ $y = 2(0)$ $y = 0$	$y = 2x$ $y = 2(1)$ $y = 2$	ordered pair (0 , 0)	ordered pair (1 , 2)	$y = 2x$ $y = 2(2)$ $y = 4$	$y = 2x$ $y = 2(3)$ $y = 6$	ordered pair (2 , 4)	ordered pair (3 , 6)
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<p>Divide Integers</p>	$-4 \div (-2) = 2$ $\frac{8}{-2} = -4$ $-10 \div (-2) = 5$	$\frac{8}{-4} = -2$ $-8 \div (-2) = 4$ $\frac{12}{-3} = -4$	$12 \div (-3) = -4$ $24 \div 3 = 8$ $36 \div (-6) = -6$	<p>Integer Rules $(+) \div (-) = -$ $(-) \div (+) = -$ $(-) \div (-) = +$ $(+) \div (+) = +$ Memorize the rules.</p>																				
<p>Computation</p>	$\begin{array}{r} 44 \text{ R}1/3 \\ 15 \overline{)665} \\ \underline{-60} \\ 65 \\ \underline{-60} \\ 5 \end{array}$ $\frac{5}{15} \div \frac{5}{5} = \frac{1}{3}$	$\begin{array}{r} 5 \\ 5 \overline{)5} \\ \underline{-5} \\ 0 \end{array}$	$\begin{array}{r} 1 \frac{2}{3} \\ + 1 \frac{1}{3} \\ \hline 2 \frac{3}{3} = 1 + 1 = 2 \end{array}$	$\begin{array}{r} 1 \\ 152 \\ \times 12 \\ \hline 304 \\ + 1520 \\ \hline 1,824 \end{array}$	<p>Change the fraction to a decimal with division.</p> $\frac{3}{4} = 0.75$ $\begin{array}{r} 0.75 \\ 4 \overline{)3.00} \\ \underline{-28} \\ 20 \\ \underline{-20} \\ 0 \end{array}$																			
<p>Prime Factorization</p>	<p>Prime Factor the following numbers, write the final answer using exponents.</p> $\begin{array}{c} 12 \\ \wedge \\ (2)6 \\ \wedge \\ (2)(3) \end{array}$ $2 \times 2 \times 3 = 2^2 \times 3$	$\begin{array}{c} 8 \\ \wedge \\ (2)4 \\ \wedge \\ (2)(2) \end{array}$ $2 \times 2 \times 2 = 2^3$	$\begin{array}{c} 16 \\ \wedge \\ (2)8 \\ \wedge \\ (2)4 \\ \wedge \\ (2)(2) \end{array}$ $2 \times 2 \times 2 \times 2 = 2^4$	<p>Order of Operations</p> $2^2 + (8 - 7) \times 9$ $2^2 + 1 \times 9$ $4 + 1 \times 9$ $4 + 9$ 13																				
<p>Vocabulary</p>	<p>factor ratio common factor prime factorization greatest common factor (GCF) least common multiple (LCM)</p>	<p>Finding the factors of a number that are all prime. prime factorization</p> <p>The smallest nonzero number that is a multiple of two or more numbers. LCM</p> <p>A comparison of two numbers or variables that can be written in fraction form. ratio</p> <p>A number that is multiplied by another number to get a product. factor</p> <p>A factor of two or more numbers. common factor</p> <p>The largest number that divides two or more numbers evenly. GCF</p>																						
<p>Evaluate Expression</p>	<p>Evaluate the following expressions when $x = 6$</p> $2x + 2 - 3$ $2(6) + 2 - 3$ $12 + 2 - 3$ $14 - 3$ 11			<p>CF and GCF</p> <p>Find the common factors and GCF.</p> $10 - 1, 2, 5, 10$ $12 - 1, 2, 3, 4, 6, 12$ CF = 1, 2 GCF = 2																				
<p>Multiple Representations</p>		<table border="1"> <thead> <tr> <th>x</th> <th>Process $y = 2x + 1$</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>$y = 2(0) + 1$</td> <td>1</td> </tr> <tr> <td>1</td> <td>$y = 2(1) + 1$</td> <td>3</td> </tr> <tr> <td>2</td> <td>$y = 2(2) + 1$</td> <td>5</td> </tr> <tr> <td>3</td> <td>$y = 2(3) + 1$</td> <td>7</td> </tr> </tbody> </table>	x	Process $y = 2x + 1$	y	0	$y = 2(0) + 1$	1	1	$y = 2(1) + 1$	3	2	$y = 2(2) + 1$	5	3	$y = 2(3) + 1$	7	<p>Fill in the table and graph the points. Connect the points to draw a line.</p> <table border="1"> <thead> <tr> <th>$y = 2x + 1$</th> <th>$y = 2x + 1$</th> </tr> </thead> <tbody> <tr> <td>$y = 2(0) + 1$ $y = 0 + 1$ $y = 1$ ordered pair (0, 1)</td> <td>$y = 2(1) + 1$ $y = 2 + 1$ $y = 3$ ordered pair (1, 3)</td> </tr> <tr> <td>$y = 2(2) + 1$ $y = 4 + 1$ $y = 5$ ordered pair (2, 5)</td> <td>$y = 2(3) + 1$ $y = 6 + 1$ $y = 7$ ordered pair (3, 7)</td> </tr> </tbody> </table>	$y = 2x + 1$	$y = 2x + 1$	$y = 2(0) + 1$ $y = 0 + 1$ $y = 1$ ordered pair (0, 1)	$y = 2(1) + 1$ $y = 2 + 1$ $y = 3$ ordered pair (1, 3)	$y = 2(2) + 1$ $y = 4 + 1$ $y = 5$ ordered pair (2, 5)	$y = 2(3) + 1$ $y = 6 + 1$ $y = 7$ ordered pair (3, 7)
x	Process $y = 2x + 1$	y																						
0	$y = 2(0) + 1$	1																						
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$y = 2x + 1$	$y = 2x + 1$																							
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<p>Divide Integers</p>	$-8 \div (-4) = 2$ $\frac{12}{-3} = -4$ $-24 \div (-6) = 4$	$\frac{15}{-3} = -5$ $-28 \div (-4) = 7$ $\frac{36}{-6} = -6$	$45 \div (-9) = -5$ $48 \div 6 = 8$ $27 \div (-3) = -9$	<p>Integer Rules $(+) \div (-) = -$ $(-) \div (+) = -$ $(-) \div (-) = +$ $(+) \div (+) = +$ Memorize the rules.</p>																																					
<p>Computation</p>	$\begin{array}{r} 19\ 1/2 \\ 24 \overline{)468} \\ \underline{-24} \\ 228 \\ \underline{-216} \\ 12 \end{array}$ $\frac{12}{24} \div \frac{12}{12} = \frac{1}{2}$	$4\ \frac{1}{3} + \frac{1}{3} = 4\ \frac{2}{3}$	$4\ \frac{3}{4} + \frac{1}{4} = 4\ \frac{4}{4} = 4 + 1 = 5$ $\begin{array}{r} 12\ 12 \\ \times 24 \\ \hline 48 \\ + 480 \\ \hline 6,144 \end{array}$	<p>Change the fraction to a decimal with division.</p> $\begin{array}{r} 0.375 \\ 8 \overline{)3.000} \\ \underline{-24} \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array}$ <p>$\frac{3}{8} = 0.375$</p>																																					
<p>Prime Factorization</p>	<p>Prime Factor the following numbers, write the final answer using exponents.</p> $\begin{array}{c} 6 \\ \wedge \\ 2\ 3 \\ 2 \times 3 \end{array}$	$\begin{array}{c} 8 \\ \wedge \\ (2)\ 4 \\ \wedge \\ (2)(2) \\ 2 \times 2 \times 2 = 2^3 \end{array}$	$\begin{array}{c} 15 \\ \wedge \\ 3\ 5 \\ 3 \times 5 \end{array}$	<p>Order of Operations</p> $2^3 + (24 \div 6) \times 3$ $2^3 + 4 \times 3$ $8 + 4 \times 3$ $8 + 12$ 20																																					
<p>Vocabulary</p> <p>factor ratio common factor prime factorization GCF LCM</p>	<p>The largest number that divides two or more numbers evenly. GCF</p> <p>The smallest nonzero number that is a multiple of two or more numbers. LCM</p> <p>A number that is multiplied by another number to get a product. factor</p> <p>A factor of two or more numbers. common factor</p> <p>Finding the factors of a number that are all prime. prime factorization</p> <p>A comparison of two numbers or variables that can be written in fraction form. ratio</p>																																								
<p>Evaluate Expressions</p>	<p>Evaluate the following expressions when $x = 2$</p> $2x + (2 - x) + 6$ $2(2) + (2 - 2) + 6$ $2(2) + 0 + 6$ $4 + 0 + 6$ $4 + 6$ 10		<p>CF and GCF</p> <p>Find the common factors and GCF.</p> $12 - (1, 2, 3, 4, 6, 12)$ $48 - (1, 2, 3, 4, 6, 8, 12, 16, 24, 48)$ <p>CF-1,2,3,4,6,12 GCF- 12</p>																																						
<p>Multiple Representations</p>		<table border="1"> <thead> <tr> <th>x</th> <th>Process</th> <th>y</th> </tr> </thead> <tbody> <tr> <td></td> <td>$y = 10 - 3x$</td> <td></td> </tr> <tr> <td>0</td> <td>$y = 10 - 3(0)$</td> <td>10</td> </tr> <tr> <td>1</td> <td>$y = 10 - 3(1)$</td> <td>7</td> </tr> <tr> <td>2</td> <td>$y = 10 - 3(2)$</td> <td>4</td> </tr> <tr> <td>3</td> <td>$y = 10 - 3(3)$</td> <td>1</td> </tr> </tbody> </table>	x	Process	y		$y = 10 - 3x$		0	$y = 10 - 3(0)$	10	1	$y = 10 - 3(1)$	7	2	$y = 10 - 3(2)$	4	3	$y = 10 - 3(3)$	1	<p>Fill in the table and graph the points. Connect the points to draw a line.</p> <table border="1"> <tbody> <tr> <td>$y = 10 - 3x$</td> <td>$y = 10 - 3x$</td> </tr> <tr> <td>$y = 10 - 3(0)$</td> <td>$y = 10 - 3(1)$</td> </tr> <tr> <td>$y = 10 - 0$</td> <td>$y = 10 - 3$</td> </tr> <tr> <td>$y = 10$</td> <td>$y = 7$</td> </tr> <tr> <td>ordered pair (0 , 10)</td> <td>ordered pair (1 , 7)</td> </tr> <tr> <td>$y = 10 - 3x$</td> <td>$y = 10 - 3x$</td> </tr> <tr> <td>$y = 10 - 3(2)$</td> <td>$y = 10 - 3(3)$</td> </tr> <tr> <td>$y = 10 - 6$</td> <td>$y = 10 - 9$</td> </tr> <tr> <td>$y = 4$</td> <td>$y = 1$</td> </tr> <tr> <td>ordered pair (2 , 4)</td> <td>ordered pair (3 , 1)</td> </tr> </tbody> </table>	$y = 10 - 3x$	$y = 10 - 3x$	$y = 10 - 3(0)$	$y = 10 - 3(1)$	$y = 10 - 0$	$y = 10 - 3$	$y = 10$	$y = 7$	ordered pair (0 , 10)	ordered pair (1 , 7)	$y = 10 - 3x$	$y = 10 - 3x$	$y = 10 - 3(2)$	$y = 10 - 3(3)$	$y = 10 - 6$	$y = 10 - 9$	$y = 4$	$y = 1$	ordered pair (2 , 4)	ordered pair (3 , 1)
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