

Final Exam Review #1
Ladder 2

Name: _____

Chapter	Question	Work				
1	Solve for the given variable: $\frac{3}{4}(x+4) - 1 = 8$					
1	If $4x + 8 + 6x - 5 = 33$, then what is $2x - 4$?					
1	Translate the verbal model into an algebraic equation.	<p>a) Four less than a number is six.</p> <p>b) Nine plus the quotient of a number and four is five.</p> <p>c) Six times the difference of a number and three is 24.</p>				
2	An error was made while solving the inequality $-3(x + 5) > 21$. Choose the step where the error was made. Step 1: $-3(x + 5) > 21$ Step 2: $-3x + 15 > 21$ Step 3: $-3x > -6$ Step 4: $x < 2$					
2	During a sale, customers receive an extra discount if they spend \$200 or more. So far, Erin's purchases total \$135. Which inequality can be solve to show how many more dollars, d , she must spend to receive the extra discount?	<table border="1"> <tbody> <tr> <td>a. $135 + d > 200$</td> <td>b. $d - 135 > 200$</td> </tr> <tr> <td>c. $135 + d \geq 200$</td> <td>d. $d - 135 \geq 200$</td> </tr> </tbody> </table>	a. $135 + d > 200$	b. $d - 135 > 200$	c. $135 + d \geq 200$	d. $d - 135 \geq 200$
a. $135 + d > 200$	b. $d - 135 > 200$					
c. $135 + d \geq 200$	d. $d - 135 \geq 200$					

3	What is the x-intercept of the line $5x + 3y = 15$?																															
3	<p>Which of the following represent functions?</p> <p>I. <table border="1" data-bbox="342 285 618 457"> <thead> <tr><th>Input</th><th>Output</th></tr> </thead> <tbody> <tr><td>4</td><td>0</td></tr> <tr><td>5</td><td>0</td></tr> <tr><td>6</td><td>-1</td></tr> <tr><td>7</td><td>-1</td></tr> </tbody> </table></p> <p>II. <table border="1" data-bbox="753 285 1029 457"> <thead> <tr><th>Input</th><th>Output</th></tr> </thead> <tbody> <tr><td>2</td><td>8</td></tr> <tr><td>4</td><td>6</td></tr> <tr><td>6</td><td>4</td></tr> <tr><td>8</td><td>2</td></tr> </tbody> </table></p> <p>III. <table border="1" data-bbox="1162 285 1438 457"> <thead> <tr><th>Input</th><th>Output</th></tr> </thead> <tbody> <tr><td>-2</td><td>0</td></tr> <tr><td>1</td><td>1</td></tr> <tr><td>1</td><td>2</td></tr> <tr><td>2</td><td>3</td></tr> </tbody> </table></p> <p>a. All b. I and II c. I and III d. II and III</p>	Input	Output	4	0	5	0	6	-1	7	-1	Input	Output	2	8	4	6	6	4	8	2	Input	Output	-2	0	1	1	1	2	2	3	
Input	Output																															
4	0																															
5	0																															
6	-1																															
7	-1																															
Input	Output																															
2	8																															
4	6																															
6	4																															
8	2																															
Input	Output																															
-2	0																															
1	1																															
1	2																															
2	3																															
4	$f(x) = \begin{cases} -2x + 4, & \text{if } x \leq 2 \\ 6, & \text{if } 2 < x \leq 6 \\ x - 1, & \text{if } x > 6 \end{cases}$	<p>Find:</p> <p>a. $f(2) =$</p> <p>b. $f(5) =$</p> <p>c. $f(-2) =$</p> <p>d. $f(8) =$</p>																														
4	<p>Determine if the sequence is arithmetic. If so, write the general rule for the arithmetic sequence.</p> <p>2, 6, 10, 14, ...</p>																															
4	<p>Find the equation, in point-slope form, of a line passing through the points (6, -2) and (1, 3).</p>																															
4	<p>Write an equation in function form given the following:</p> <p>$f(-1) = 0, f(2) = 3$</p>																															
5	<p>How many solutions does the system of equations have?</p> <p>$2x + y = 8$ $4x + 2y = 16$</p>																															