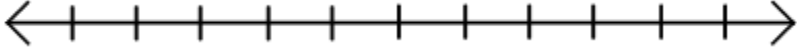

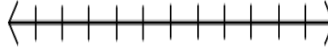


Cornell Notes	Name: _____
Topic: <u>Writing and Graphing Inequalities Lesson 7.5</u>	Date: _____
	Period: _____

Essential Question: How can you use a number line to represent solutions of an inequality?
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Questions/Main Ideas:	Notes:										
Vocabulary	Inequality - a mathematical sentence that compares expressions.										
	Solution of an Inequality - a value that makes the inequality true.										
	Solution Set -set of all solutions of an inequality (answers) { _____ }										
	Graph of an Inequality - shows all the solutions of the inequality on a number line										
Inequality Symbols	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">Symbol</th> <th style="padding: 5px;">$<$</th> <th style="padding: 5px;">$>$</th> <th style="padding: 5px;">\leq</th> <th style="padding: 5px;">\geq</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px; background-color: #d9ead3;">Key Phrases</td> <td style="padding: 5px;"> <ul style="list-style-type: none"> • is less than • is fewer than </td> <td style="padding: 5px;"> <ul style="list-style-type: none"> • is greater than • is more than </td> <td style="padding: 5px;"> <ul style="list-style-type: none"> • is less than or equal to • is at most • is no more than </td> <td style="padding: 5px;"> <ul style="list-style-type: none"> • is greater than or equal to • is at least • is no less than </td> </tr> </tbody> </table>	Symbol	$<$	$>$	\leq	\geq	Key Phrases	<ul style="list-style-type: none"> • is less than • is fewer than 	<ul style="list-style-type: none"> • is greater than • is more than 	<ul style="list-style-type: none"> • is less than or equal to • is at most • is no more than 	<ul style="list-style-type: none"> • is greater than or equal to • is at least • is no less than
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Example 1	Writing Inequalities										
	Write the word sentence as an inequality.										
	a.) A number c is less than -4.										
	b.) A number k plus 5 is greater than or equal to 8.										
	c.) Four times a number q is at most 16.										
Your Turn!	1.) A number n is greater than 1.										
	2.) Twice a number p is fewer than 7.										
	3.) A number w minus 3 is less than or equal to 10.										
	4.) A number z divided by 2 is at least -6.										

Example 2	Checking Solutions	
	a.) $x + 1 > 7; x = 8$	b.) $7y < 27; y = 4$
	c.) $\frac{z}{3} \geq 5; z = 15$	
Example 3	Graphing an Inequality	
	Graph $g > 2$.	
		
	*Note Open Dot $<$ or $>$	Closed Dot \leq or \geq
Your Turn!	5.) $b + 4 < 6$	6.) $9 - n \geq 6$
	8.) $a < 4$	9.) $p \geq -3$
		
Summary: Students should write a summary reflecting the above essential question.		