

	<b>Numerical</b> Solution	<b>Graphical</b> Solution	<b>Algebraic</b> Solutions
Linear Inequalities in <b>One</b> Variable	<p>Y1 = <b>Left</b> expression  Y2 = <b>Right</b> expression  Create a table of values with x, Y1, Y2  Find integer values of x which make the inequality for Y1 and Y2 <b>true</b>.  Write <b>solution</b> as  -an <b>inequality</b> in x  -a <b>number line</b> graph  -in <b>interval</b> notation</p>	<p>Y1 = <b>Left</b> expression  Y2 = <b>Right</b> expression  <b>Graph</b> Y1 and Y2  Find the <b>intersection</b> of the two graphs  Determine if Y1 should be <b>above or below</b> Y2  Find <b>values of x</b> which make Y1 above or below Y2  Write <b>solution</b> using <b>inequality</b> notation, <b>number line</b> notation or <b>interval</b> notation</p>	<p>Use the <b>properties</b> of inequalities to <b>solve for x</b>:  If <math>a &lt; b</math>, then  <math>a + c &lt; b + c</math>  <math>a - c &lt; b - c</math>  <math>a * c &lt; b * c</math> if c is positive  <math>a * c &gt; b * c</math> if c is negative  <math>a / c &lt; b / c</math> if c is positive  <math>a / c &gt; b / c</math> if c is negative  Write <b>solution</b> using <b>inequality</b> notation, <b>number line</b> notation or <b>interval</b> notation</p>
Linear Inequalities in <b>Two</b> Variables	<p><b>Solve</b> the inequality for <b>y</b>  Set up a <b>table</b> of values  For each value of x, write an <b>inequality</b> for y  The <b>solution</b> is any pair <b>(x, y)</b> that satisfies the inequality for y given the value of x</p>	<p><b>Solve</b> the inequality for y  Graph the <b>boundary</b> line as Y= <b>Right</b> expression using a <b>solid</b> line or <b>dotted</b> line as appropriate  <b>Shade below</b> the boundary line if the inequality is <math>y &lt;</math> and shade <b>above</b> the boundary line if the inequality is <math>y &gt;</math>  The <b>solution</b> is any <b>(x, y)</b> in the shaded region or on the solid line (but not on the dotted line)  <b>Check</b> a point on either side of the boundary line</p>	<p>Use <b>properties</b> of linear inequalities to <b>isolate y</b>  The <b>solution</b> is any <b>(x, y)</b> that makes the inequality true</p>
<b>Systems</b> of Linear Inequalities in Two Variables	Not used	<p><b>Graph each</b> of the linear inequalities on the same coordinate plane  The <b>solution</b> is any <b>(x, y)</b> in the <b>overlapping</b> shaded region or on a <b>solid</b> boundary line (but not on a dotted line)</p>	Not used