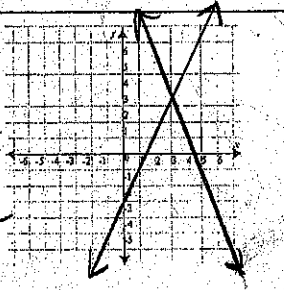
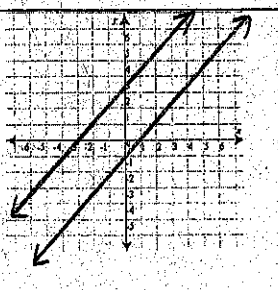
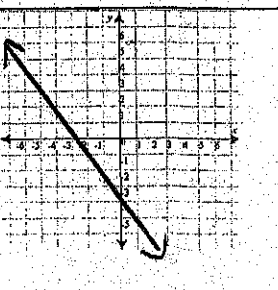


How Many Solutions to the System?

Method		<u>One Solution</u>	<u>No Solutions</u>	<u>Infinite Solutions</u>
Method	Graphing	<p>Best to use when:</p> <p>Both equations are in <u>slope-intercept</u></p> <p>$Y = mx + b$</p>  <p>Solution is the point of <u>intersection</u> of the lines.</p>	 <p>Lines are <u>parallel</u> and do not <u>intersect</u></p>	 <p>Lines are <u>the same</u> and <u>equal</u> at every point.</p>
	Substitution	<p>Best to use when:</p> <p>One equation has been solved for a <u>variable</u></p> <p>$Y = -x + 1$ $2x + 3y = 2$</p> <p>After substituting and simplifying you will be left with</p> <p>$x = a$ number $Y = a$ number</p> <p>Solution will take the form of (x, y)</p>	<p>After substituting variables will form <u>additive inverses</u> and will leave you with a <u>false</u> statement</p> <p style="text-align: center;">$2 = 3$</p>	<p>After substituting variables will form <u>opposites</u> and will leave you with a <u>true</u> statement</p> <p style="text-align: center;">$3 = 3$</p>
	Elimination	<p>Best to use when:</p> <p>Coefficients of variables are <u>additive inverses</u> or can be easily made <u>opposites</u> using multiplication.</p> <p>$3x + 4y = 7$ $-3x + 7y = 4$</p> <p>After eliminating and simplifying you will be left with</p> <p>$x = a$ number $Y = a$ number</p> <p>Solution will take the form of (x, y)</p>	<p>After eliminating variables will form <u>additive inverses</u> and will leave you with a <u>false</u> statement</p> <p style="text-align: center;">$0 = 3$</p>	<p>After eliminating variables will form <u>opposites</u> and will leave you with a <u>true</u> statement</p> <p style="text-align: center;">$0 = 0$</p>