

9.0b

(5) CST items

~~Students solve a system of two linear equations in two variables algebraically and are able to interpret the answer graphically.~~

Students are able to solve a system of two linear inequalities in two variables and sketch the solution sets.

Key Vocabulary

Solve	Variable	Linear	System of Equations
Substitution	Sketch	System of Inequalities	Graphical Interpretation
Solution	Intersection	Coordinates	Guess-and-Check

Instructional Objectives

1	<p>Plot all points on a graph that are solutions to two different inequalities, and then shade the region that contains solutions to BOTH inequalities.</p>	<p>1 Use red ink to bubble in all points that are solutions to the inequality: $x + y \leq 4$</p> <p>2 Use blue ink to bubble in all points that are solutions to the inequality: $2y \leq x + 2$</p> <p>3 Use pencil to shade the region which contains solutions to BOTH inequalities above.</p>	
2	<p>Convert a linear inequality to slope-intercept form and sketch the graph.</p>	<p>1 Convert to slope-intercept form: $7 + 3y \geq -12x + 31$</p> <p>2 Convert to slope-intercept form: $2x - 4y \geq 20$</p> <p>3 Graph the inequality: $y < 2x - 8$</p> <p>4 Graph the inequality: $y > \frac{1}{2}x - 4$</p>	
3	<p>Sketch the solution to a system of linear inequalities.</p>	<p>1 Sketch the solution to the system of inequalities shown: $y < x$ $y < -\frac{1}{2}x + 6$</p> <p>2 Sketch the solution to the system of inequalities shown: $y > 2x - 4$ $y \geq \frac{3}{4}x + 6$</p> <p>3 Sketch the solution to the system of inequalities shown: $y + x \geq 9$ $y \leq 3x - 9$</p> <p>4 Sketch the solution to the system of inequalities shown: $2x - 6y \geq 18$ $y \geq x + -3$</p>	