

6.2

(4) CST items

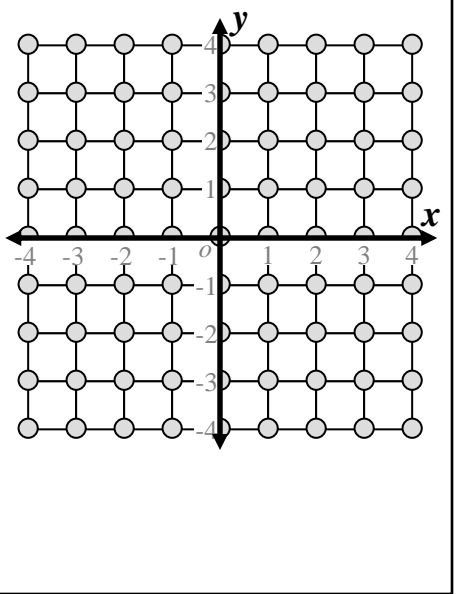
Students ~~graph a linear equation and compute the x and y intercepts (e.g., graph $2x + 6y = 4$).~~

They are also able to sketch the region defined by a linear inequality (e.g., they sketch the region defined by $2x + 6y < 4$).

Key Vocabulary

Data Table	Graph	Linear	Linear Inequality
x -intercept	y -intercept	Slope	Slope-Intercept Form
Standard Form	Rise	Run	Point

Instructional Objectives

- | | | |
|--|---|--|
| <p>1 Plot all points on a graph that are solutions to an inequality.</p> | <p>1 Bubble in all points that are solutions to the inequality:
$x + y \leq 2$</p> <p>2 Bubble in all points that are solutions to the inequality:
$2y \geq x - 4$</p> <p>3 Bubble in all points that are solutions to the inequality:
$y \leq x + 3$</p> <p>4 Bubble in all points that are solutions to the inequality:
$\frac{1}{3}x \geq y + 1$</p> |  |
| <p>2 Sketch the region defined by a linear inequality and test points by substitution.</p> | <p>1 Sketch the graph of the inequality: $y > x$</p> <p>2 Sketch the graph of the inequality: $y \geq 2x + 1$</p> <p>3 Sketch the graph of the inequality: $3y < 2x$, and state five valid solutions within the sketched region.</p> <p>4 Sketch the graph of the inequality: $4y \leq 2x - 12$, and state five valid solutions within the sketched region.</p> | |
| <p>3 Convert a linear inequality to <i>slope-intercept form</i> and sketch the graph.</p> | <p>1 Convert to slope-intercept form: $2x - 4y > 20$</p> <p>2 Sketch the graph of: $6x - 3y < 30$</p> <p>3 Sketch the graph of: $5y - 20 \geq 10x$</p> <p>4 Sketch the graph of: $2x \leq 18 - 3y$</p> | |