

NAME: _____

UNIT 2 • REASONING WITH EQUATIONS AND INEQUALITIES

Lesson 3: Solving Linear Inequalities in Two Variables and Systems of Inequalities

Practice 2.3.1: Solving Linear Inequalities in Two Variables

Graph the solution to each inequality.

1. $y > 2x$
2. $y > -3x + 1$
3. $y < -x + 3$
4. $y \leq \frac{1}{4}x - 4$
5. $3x + y \geq 5$
6. $2x - y < 1$
7. $x > 4$

Read each scenario. Then write an inequality and graph the solution.

8. Gisele runs a company that makes tablet computers. Each tablet requires an employee to assemble it and an employee to test it. There are 25 employees or fewer available, depending on who is out sick or on vacation. Write an inequality that represents the number of employees Gisele has available to do the work and then graph the solution.
9. At Binh's Greenhouse in early spring, there are many plants to repot. The plants have to be watered after they're repotted. If it takes Binh 5 minutes to repot and 2 minutes to water each plant, and he has at most 2 hours before the greenhouse opens, what inequality represents the time Binh has to repot and water the plants before the greenhouse opens? What is the graph of the solutions?
10. Toya is training for a triathlon and wants to bike and run on the same day. She has less than 3 hours to spend on her workouts. What inequality represents the time Toya has to bike and run? What is the graph of the solutions?