

Progress Check You have two options for checking prerequisite skills.

Feedback Option Take the Quick Check below. Refer to the Quick Review for help.

Quick Check

Graph each equation. **1-8. See Chapter 3 Answer Appendix.**

- 1. $y = 4x$
- 2. $y = \frac{1}{3}x + 5$
- 3. $x + 2y = 4$
- 4. $y = -x + 6$
- 5. $3x + 5y = 15$
- 6. $3y - 2x = -12$

9. BUSINESS A museum charges \$8.50 for adult tickets and \$5.25 for children's tickets. On Monday they made \$650.

- a. Write an equation that can be used to model the ticket sales. **$8.50a + 5.25c = 650$**
- b. Graph the equation. **See Chapter 3 Answer Appendix.**

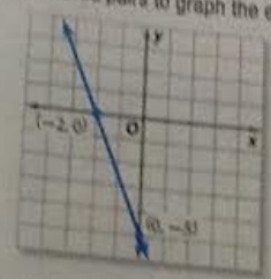
Quick Review

Example 1 (Used in Lesson 3-1)
Graph $2y + 5x = -10$.

Find the x - and y -intercepts.

$$\begin{aligned} 2(0) + 5x &= -10 & 2y + 5(0) &= -10 \\ 5x &= -10 & 2y &= -10 \\ x &= -2 & y &= -5 \end{aligned}$$

The graph crosses the x -axis at $(-2, 0)$ and the y -axis at $(0, -5)$. Use these ordered pairs to graph the equation.



Example 2 (Used in Lessons 3-2 and 3-3)
Graph $y \geq 3x - 2$.

The boundary is the graph of $y = 3x - 2$. Since the inequality symbol is \geq , the boundary will be solid.



Test the point $(0, 0)$.

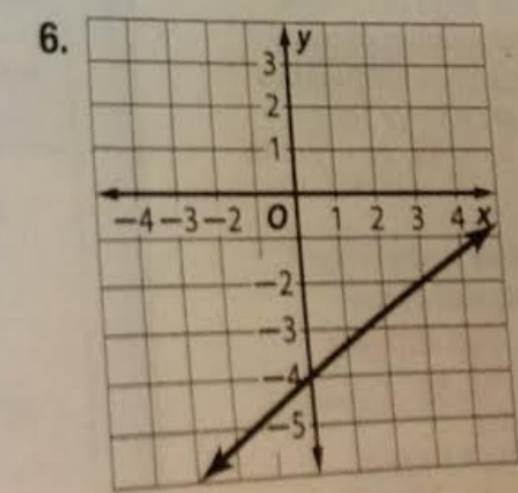
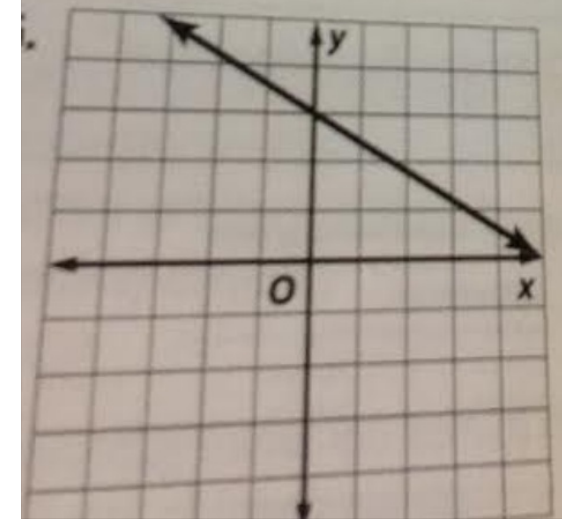
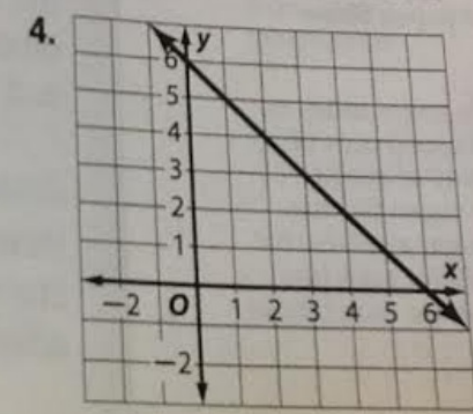
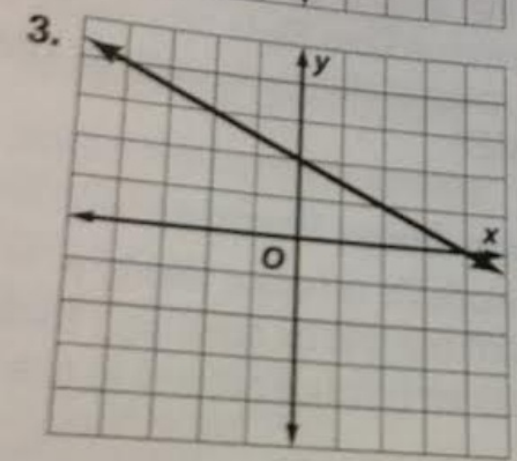
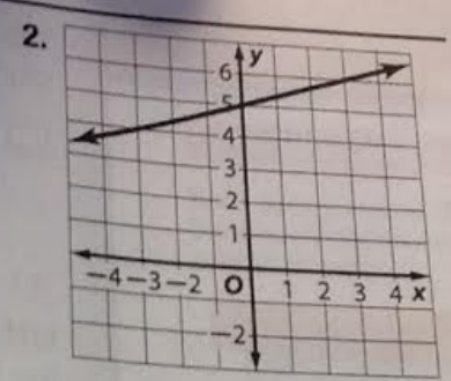
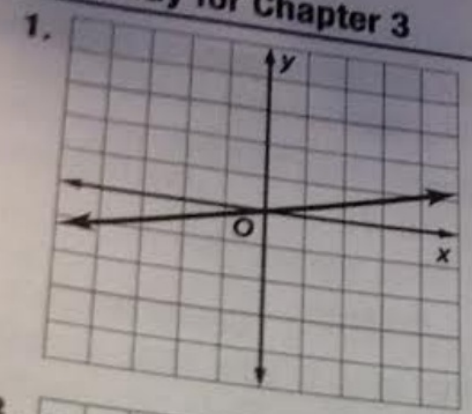
$$\begin{aligned} 0 &\geq 3(0) - 2 & (x, y) &= (0, 0) \\ 0 &\geq -2 & & \checkmark \end{aligned}$$

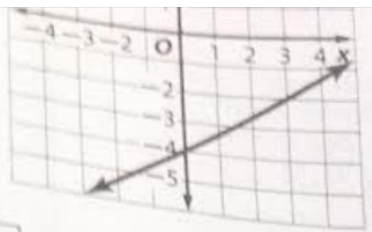
Shade the region that includes $(0, 0)$.

- Graph each inequality.
- 9. $x < 3$
- 10. $x + y \geq 1$
- 11. $x + 2y \leq 5$
- 12. $x - y > 6$
- 13. $5x - 4y < 12$

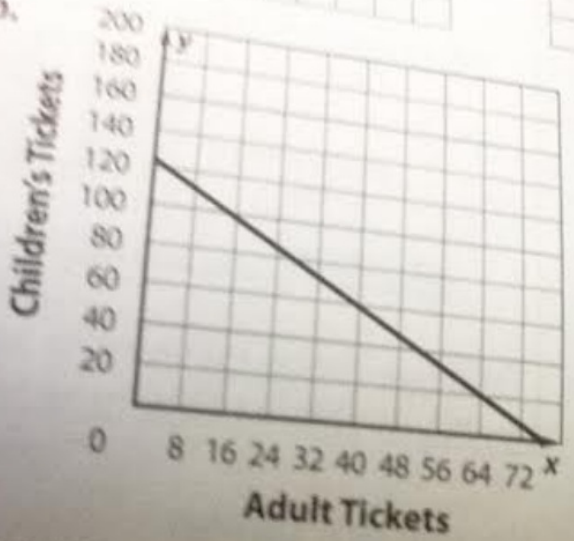
14. BUSINESS The student council is selling T-shirts for \$15 and sweatshirts for \$25. They must make \$2500 to cover their expenses. Write and graph an inequality to show the number of T-shirts and sweatshirts that they must sell. **See Chapter 3 Answer Appendix.**

Take an online self-check.

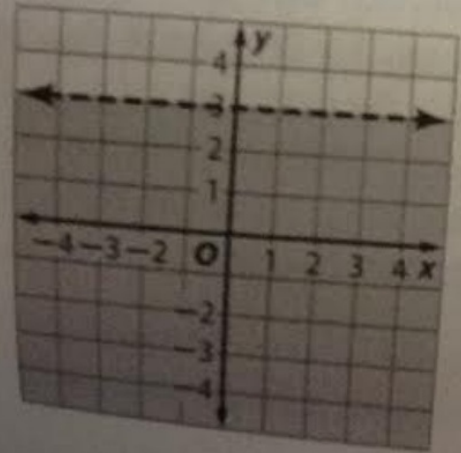




7b.



8.



9.

