

Practice A

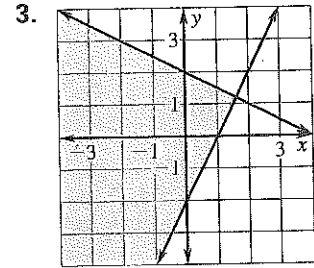
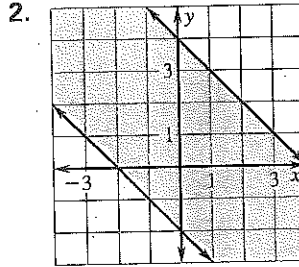
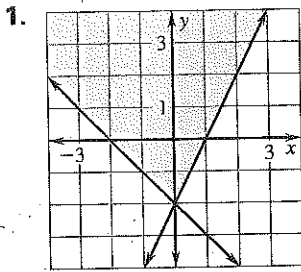
For use with pages 432-438

Match the system of linear inequalities with its graph.

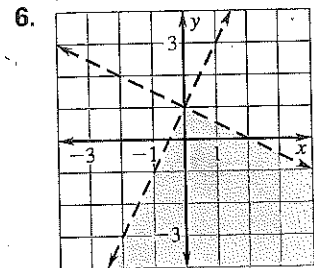
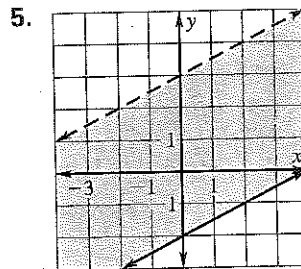
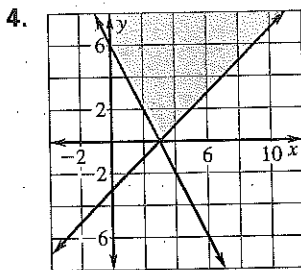
A. $x + y \leq 4$
 $x + y \geq -2$

B. $x + 2y \leq 4$
 $-2x + y \geq -2$

C. $x + y \geq -2$
 $-2x + y \geq -2$



Write a system of linear inequalities that defines the shaded region.



Graph the system of linear inequalities.

7. $y \geq 2$
 $x < -3$

8. $y < 2x + 1$
 $y \geq \frac{1}{2}x$

9. $x + y \geq 4$
 $-3x + y < 1$

10. $2x + 3y < 4$
 $2x + 3y > -9$

11. $3x - 4y > 2$
 $3x - y \geq 2$

12. $x \geq 0$
 $x \geq 0$
 $y > x - 2$

13. **Study Time** You need at least 3 hours to do your English and history homework. It is 12:00 P.M. on Sunday and your friend wants you to go to the movies at 7:00 P.M. Write a system of linear inequalities that shows the number of hours you could spend doing homework for each subject if you go to the movies. Graph your result.

14. **Ordering Cups** You work at a frozen yogurt shop during the summer. You need to order 5-ounce and 8-ounce cups. The storage room will only hold 10 more boxes. A box of 5-ounce cups costs \$100 and a box of 8-ounce cups costs \$150. A maximum of \$1200 is budgeted for yogurt cups. Write a system of linear inequalities that shows the number of boxes of 5-ounce and 8-ounce cups that could be bought. Graph your result.

15. **Geometry Connection** Write a system of linear inequalities that defines the polygonal region shown.

