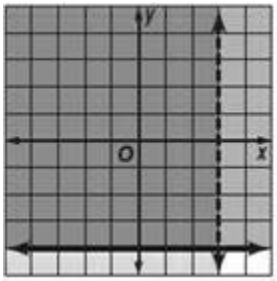
3-2 Solving Systems of Inequalities by Graphing

Solve each system of inequalities by graphing.

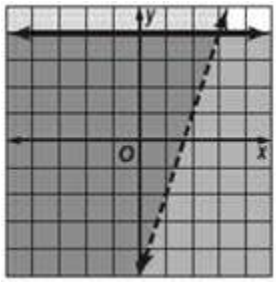
7. $x < 3$
$y \geq -4$

ANSWER:



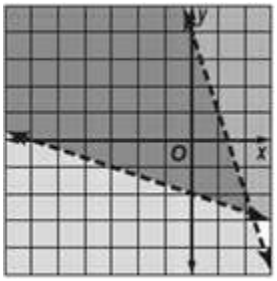
8. $y > 3x - 5$
$y \leq 4$

ANSWER:



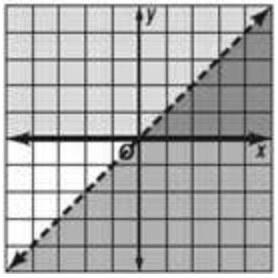
9. $y < -3x + 4$
$3y + x > -6$

ANSWER:



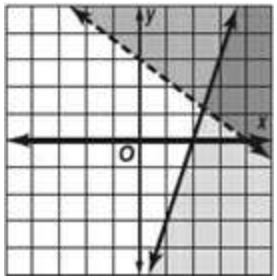
10. $y \geq 0$
$y < x$

ANSWER:



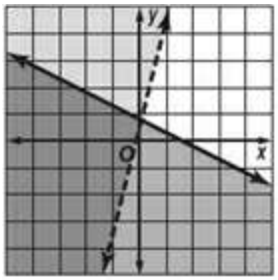
11. $6x - 2y \geq 12$
$3x + 4y > 12$

ANSWER:



12. $-8x > -2y - 1$
$-4y \geq 2x - 5$

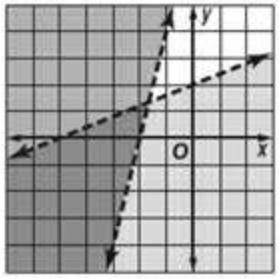
ANSWER:



3-2 Solving Systems of Inequalities by Graphing

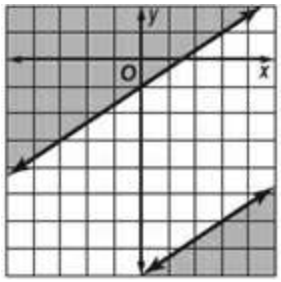
13. $5y < 2x + 10$
$y - 4x > 8$

ANSWER:



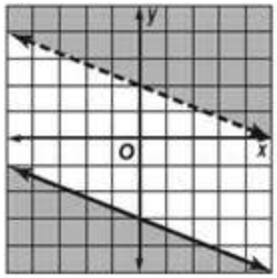
14. $3y - 2x \leq -24$
$y \geq \frac{2}{3}x - 1$

ANSWER:



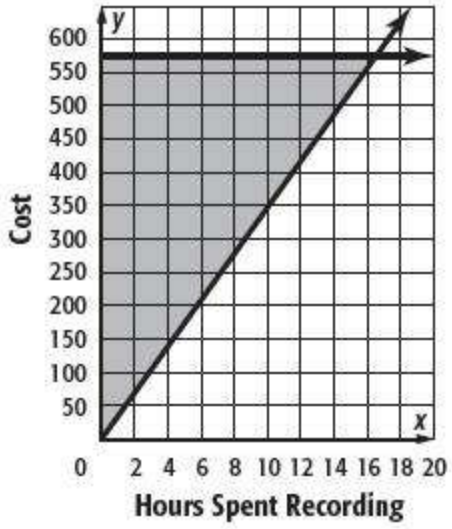
15. $y > -\frac{2}{5}x + 2$
$5y \leq -2x - 15$

ANSWER:



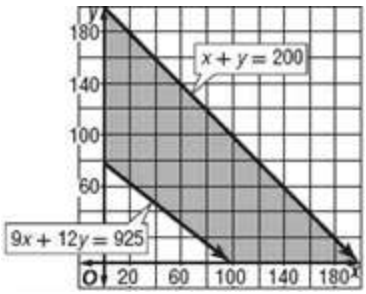
16. **RECORDING** Jane's band wants to spend no more than $575 recording their first CD. The studio charges at least $35 an hour to record. Graph a system of inequalities to represent this situation.

ANSWER:



17. **SUMMER TRIP** Rondell has to save at least $925 to go to Rome with his Latin class in 8 weeks. He earns $9 an hour working at the Pizza Palace and $12 an hour working at a car wash. By law, he cannot work more than 25 hours per week. Graph two inequalities that Rondell can use to determine the number of hours he needs to work at each job if he wants to make the trip.

ANSWER:



24. **BAKING** Rebecca wants to bake cookies and cupcakes for a bake sale. She can bake 15 cookies at a time and 12 cupcakes at a time. She needs to make at least 120 baked goods, but no more than 360, and she wants to have at least three times as many cookies as cupcakes. What combination of batches of each could Rebecca make?

ANSWER:

Sample answer: 15 batches of cookies and 6 batches of cupcakes.