Name _____ Date _____

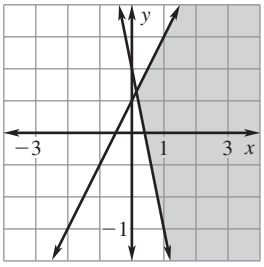
LESSON 6.6

Practice C

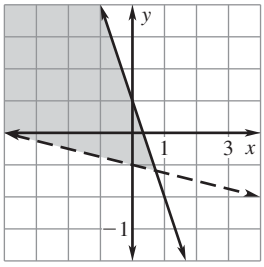
For use with the lesson "Solve Systems of Linear Inequalities"

Tell whether the ordered pair is a solution of the system of inequalities.

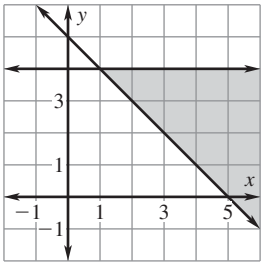
1. $(0, 1)$



2. $(0, -1)$



3. $(1, 4)$



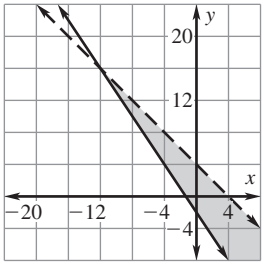
Match the system of inequalities with its graph.

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

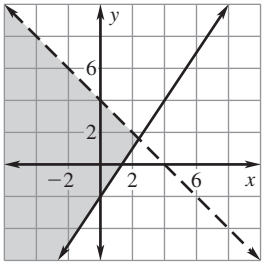
5. $3x + 2y \geq -4$
$x + y < 4$

6. $3x - 2y \leq 4$
$x + y < 4$

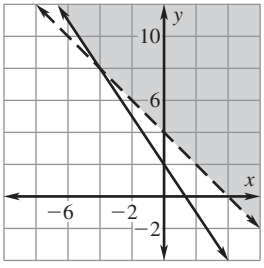
A.



B.

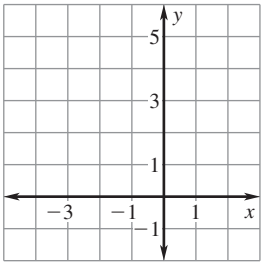


C.

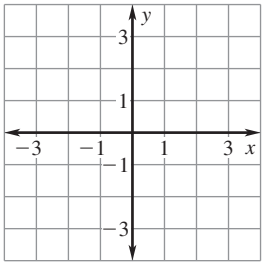


Graph the system of inequalities.

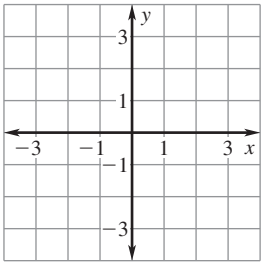
7. $x \geq -2$
$y \leq 5$



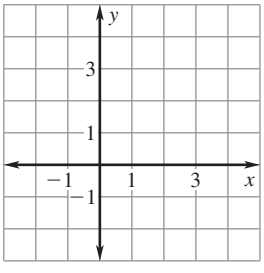
8. $x < 0$
$y > -1$



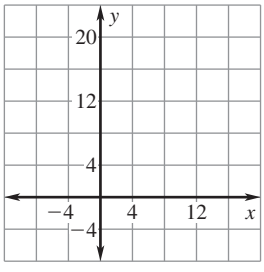
9. $3x + y < 0$
$4x - y \leq 1$



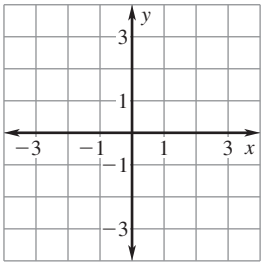
10. $x \geq 0, y \geq 0$
$2x + y < 3$



11. $x > 4, x < 8$
$y \geq 2x + 1$



12. $y > -2, x \geq 0$
$y \geq 3x$



Name _____ Date _____

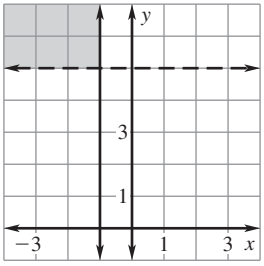
LESSON 6.6

Practice C *continued*

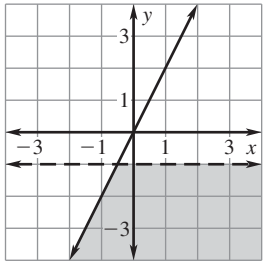
For use with the lesson "Solve Systems of Linear Inequalities"

Write a system of inequalities for the shaded region.

13.



14.



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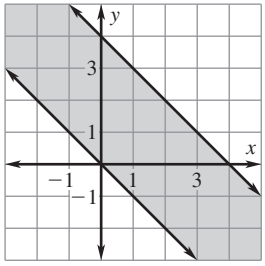
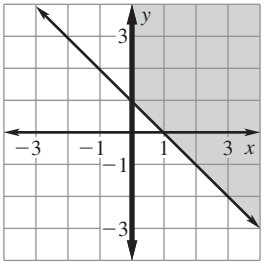
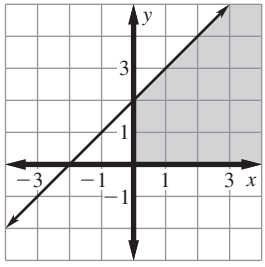


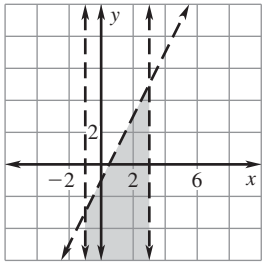
16.



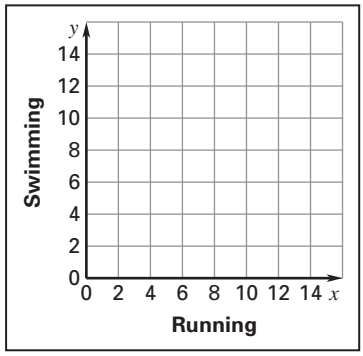
17.



18.



19. **Exercise** You work out at least 10 hours a week, but no more than 15 hours a week. You divide your exercise time between swimming and running. This week, you want to spend at least twice the amount of time on swimming as on running. Write and graph a system of linear inequalities that gives the amounts of time you spend on each different kind of exercise. Then give two possible ways you can exercise.



20. **School Play** The tickets for a school play cost $8 for adults and $5 for students. The auditorium in which the play is being held can hold at most 525 people. The organizers of the school play must make at least $3000 to cover the costs of the set construction, costumes, and programs.

a. Write a system of linear inequalities for the number of each type of ticket sold.

b. Graph the system of inequalities.

c. If the organizers sell out and sell twice as many student tickets as adult tickets, can they reach their goal? *Explain* how you got your answer.