Name		Date
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Tell whether the ordered pair is a solution of the system of inequalities.		
1. (0, 1)	2. (0, -1)	3. (1, 4)
		$\begin{array}{c c} y \\ \hline \\ 3 \\ \hline \\ -1 \\ \hline \\ -1 \\ \hline \\ 1 \\ \hline \\ 3 \\ \hline \\ 5 \\ \hline \\ \end{array}$
Match the system of inequalities with its graph.		
4. $3x + 2y \ge 4$	5. $3x + 2y \ge -4$	6. $3x - 2y \le 4$
y > 4 - x	x + y < 4	x + y < 4
A. 20^{y} 12^{y} 12^{y} 20^{-12} -4^{-4}	B. y y2 2 6 x	C. 10^{y} 6^{-6} -2^{-2} x
Graph the system of inequ	alities.	
7. $x \ge -2$	8. $x < 0$	9. $3x + y < 0$
$y \leq 5$	y > -1	$4x - y \le 1$
-5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
10. $x \ge 0, y \ge 0$	11. $x > 4, x < 8$	12. $y > -2, x \ge 0$
2x + y < 3	$y \ge 2x + 1$	$y \ge 3x$
$\begin{array}{c c} y \\ y \\ \hline \\$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c c} & & & & \\ & & & 3 \\ \hline & & & 3 \\ \hline & & & 1 \\ \hline & & & 1 \\ \hline & & & -3 \\ \hline & & & -1 \\ \hline & & & & 1 \\ \hline \hline & 1 \\ \hline & 1 \\ \hline & 1 \\ \hline \hline & 1 \\ \hline \\ \hline & 1 \\ \hline \hline & 1 \\ \hline \\ \hline & 1 \\ \hline \hline & 1 \\ \hline \hline \\ \hline & 1 \\ \hline \hline \\ \hline \hline & 1 \\ \hline \hline \hline \\ \hline \hline \\ \hline \hline \hline \\ \hline \hline \hline \hline \hline \hline \\ \hline \hline$

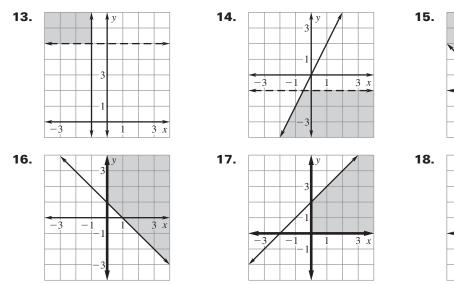
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LESSON 7.6

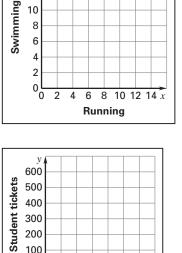
Name



Write a system of inequalities for the shaded region.



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.



400

Adult tickets

600x

200

14

12

300

200

100 0° 0 LESSON 7.6

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.

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