

Ready, Set, Go!



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Ready

Topic: Solving two variable inequalities

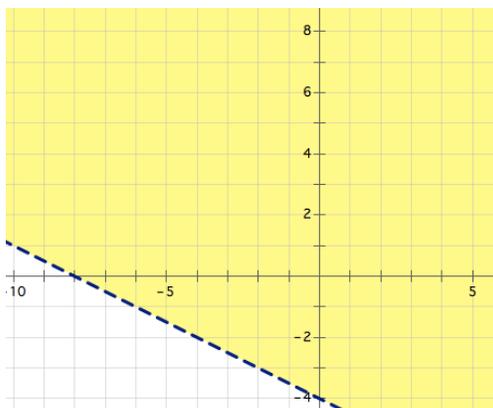
1. A theater wants to take in at least \$2000 for a certain matinee. Children's tickets cost \$5 each and adult tickets cost \$10 each.
 - a. Write an inequality describing the number of tickets that will allow the theater to meet their goal of \$2000.
 - b. If the theater has a maximum of 350 seats, write an inequality describing the number of both types of tickets the theater can sell.
 - c. Find the number of children and adult tickets that can be sold so that all seats are sold and the \$2000 goal is reached.

Set

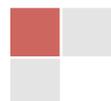
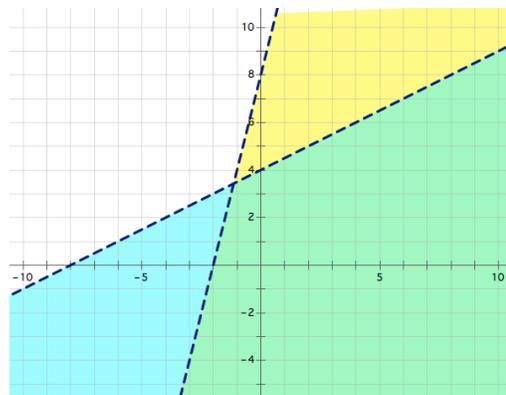
Topic: Writing equations of two variable inequalities

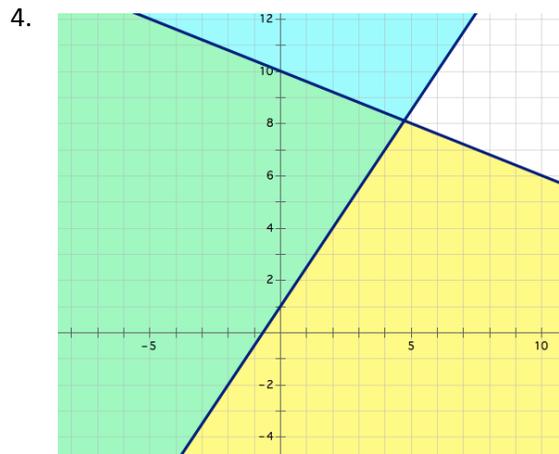
Given the graph with the regions that are shaded write the inequality or system of inequalities.

2.



3.



**Go**

Topic: Graph two variable inequalities

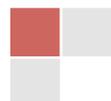
Graph each set of inequalities below. Include the shaded region of both, plus indicate the region that is true for all inequalities.

$$5. \begin{cases} x - y < -6 \\ 2y \geq 3x + 17 \end{cases}$$

$$6. \begin{cases} 5x - y \geq 5 \\ 2y - x \geq -10 \end{cases}$$

Solve the following systems of equations.

7. Nadia and Peter visit the candy store. Nadia buys three candy bars and four fruit roll-ups for \$2.84. Peter also buys three candy bars, but can only afford one additional fruit roll-up. His purchase costs \$1.79. What is the cost of a candy bar and a fruit roll-up individually?



$$5x - 10y = 15$$

10. $3x - 2y = 3$

$$5x - y = 10$$

11. $3x - 2y = -1$

$$5x + 7y = 15$$

12. $7x - 3y = 5$

Need help? Check out these related videos.

<http://www.khanacademy.org/math/algebra/systems-of-eq-and-ineq/v/graphing-systems-of-inequalities-2>

