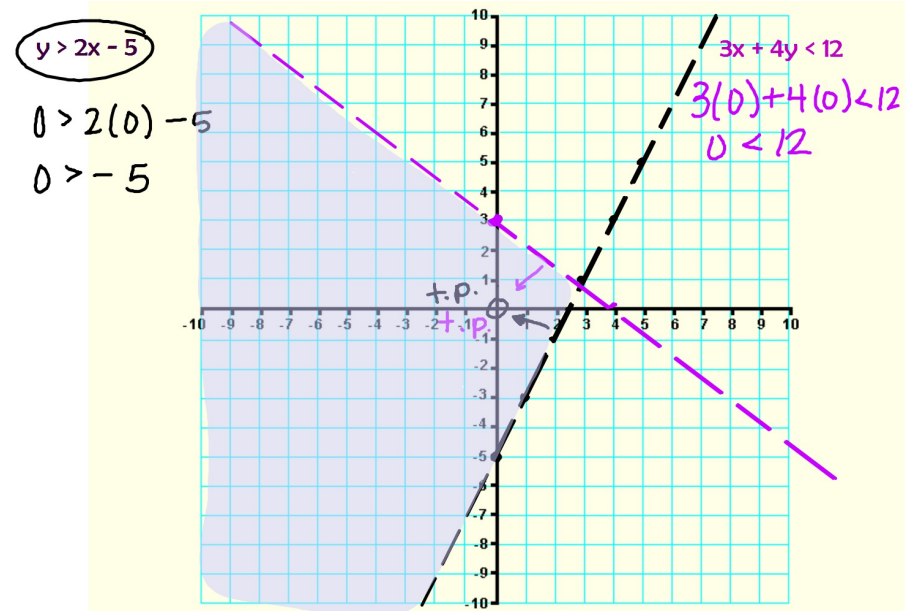


## 7.6 Systems of Linear Inequalities

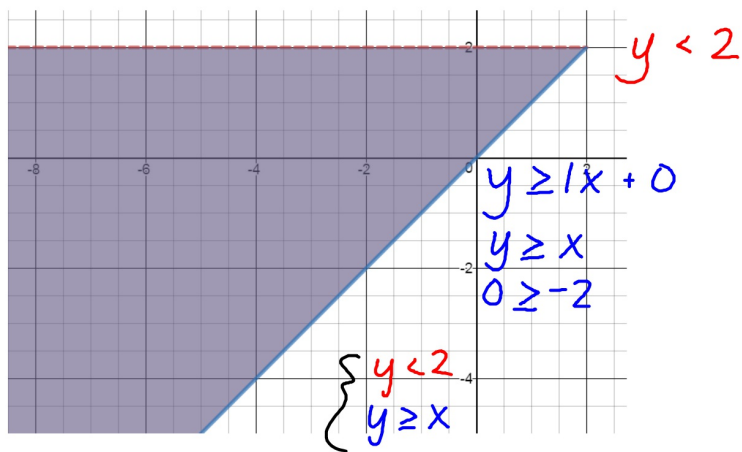
Just like section 7.5, except this time, put two inequalities on the same graph!

Page 1



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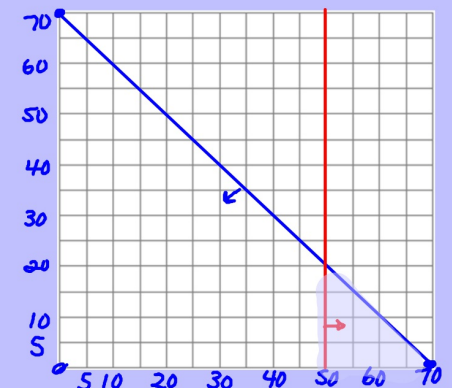
Write a system of inequalities based on this graph.



Page 3

Suppose you want to fence a rectangular garden plot. You want the length of the garden to be at least 50 ft and the perimeter to be no more than 140 ft. Solve by graphing and show all the possible dimensions of the garden.

$$\begin{aligned} x &= \text{length} \\ y &= \text{width} \\ x &\geq 50 \\ 2x + 2y &\leq 140 \\ 2(0) + 2(0) &\leq 140 \\ 0 &\leq 140 \end{aligned}$$



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