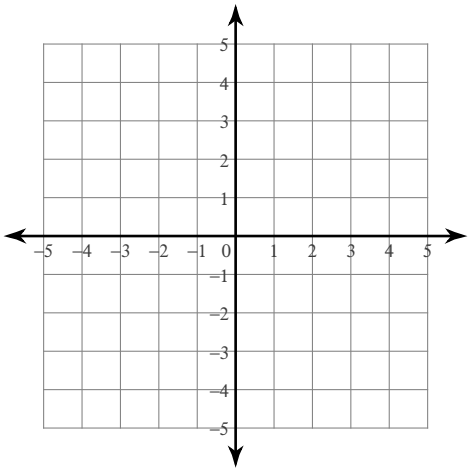
Kuta Software - Infinite Algebra 2 Name_____

Systems of Inequalities

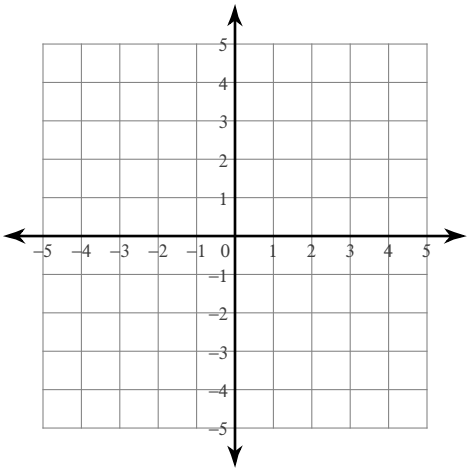
Date_____ Period____

Sketch the solution to each system of inequalities.

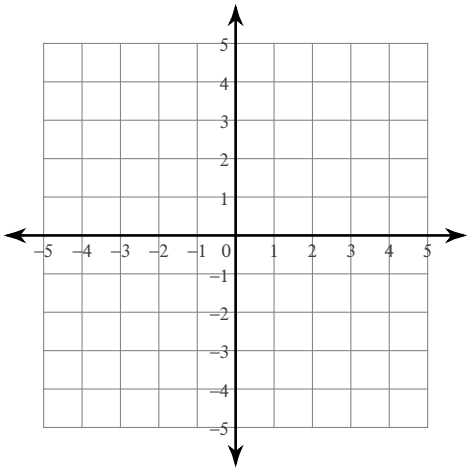
1) $y > 4x - 3$
$y \geq -2x + 3$



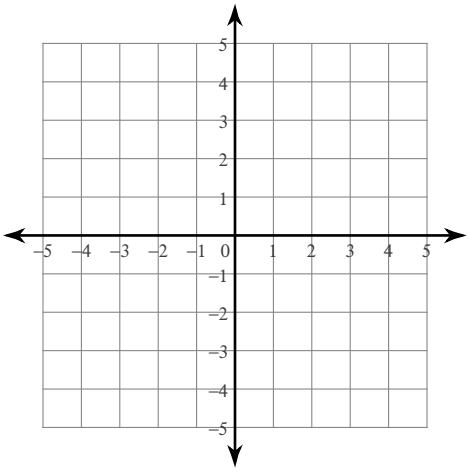
2) $y \geq -5x + 3$
$y > -2$



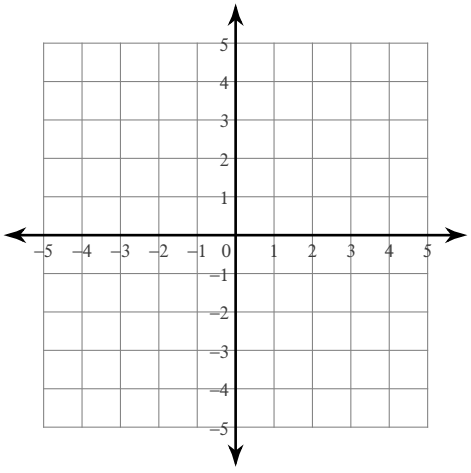
3) $y < 3$
$y \leq -x + 1$



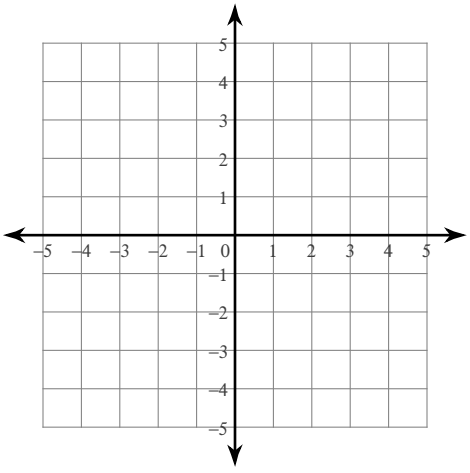
4) $y \geq x - 3$
$y \geq -x - 1$



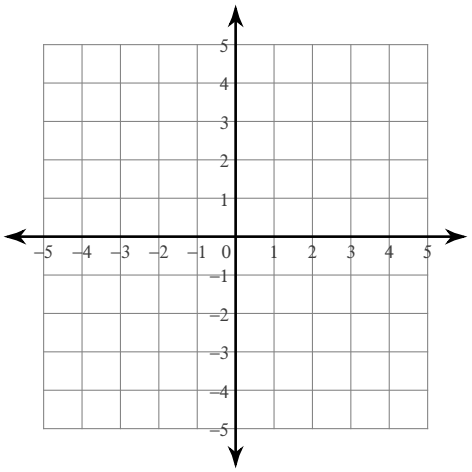
5) $x \leq -3$
$5x + 3y \geq -9$



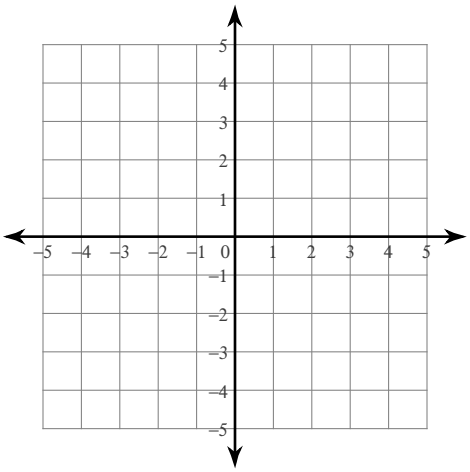
6) $4x - 3y < 9$
$x + 3y > 6$



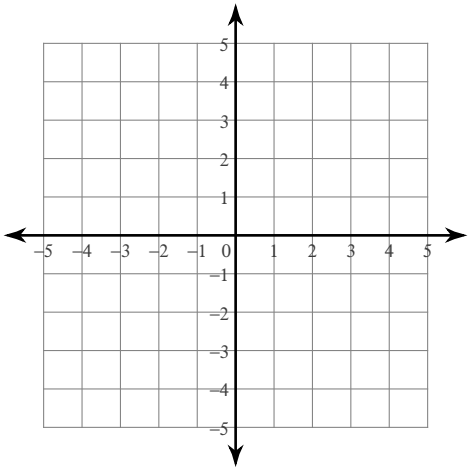
7) $x + y > 2$
$2x - y > 1$



8) $x + y \geq 2$
$4x + y \geq -1$



9) $4x + 3y > -6$
$x - 3y \leq -9$



10) $y < -2$
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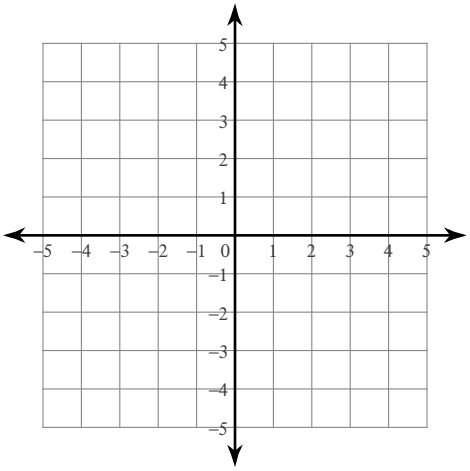
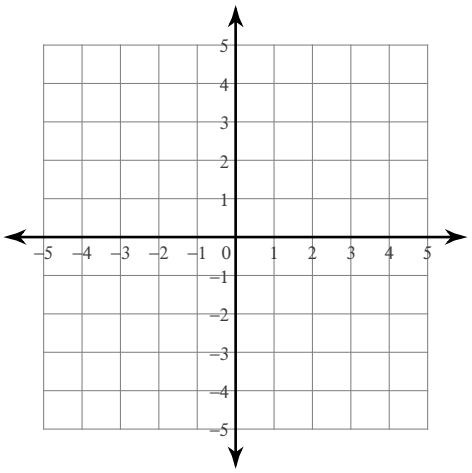
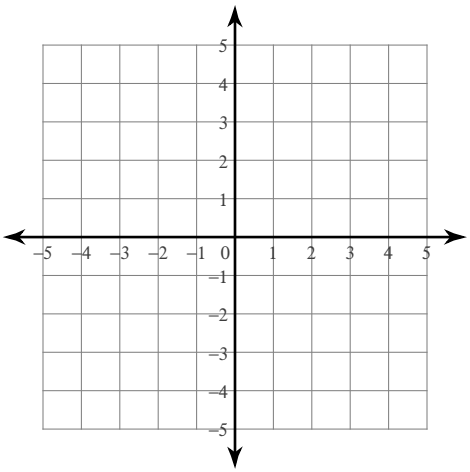


11) $3x + y \geq -3$
$x + 2y \leq 4$



12) $x + y \geq -3$
$x + y \leq 3$



Critical thinking questions:

13) State one solution to the system
$y < 2x - 1$
$y \geq 10 - x$

14) Write a system of inequalities whose solution is the set of all points in quadrant I not including the axes.

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Systems of Inequalities

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Sketch the solution to each system of inequalities.

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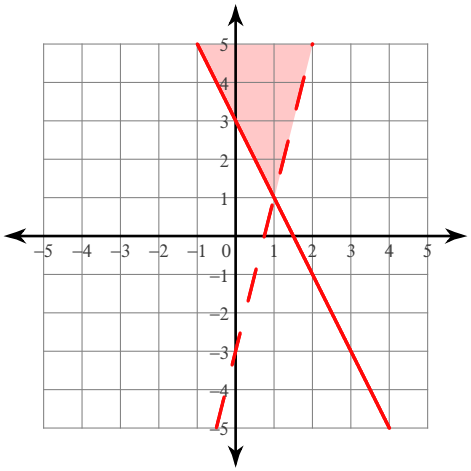

2) $y \geq -5x + 3$
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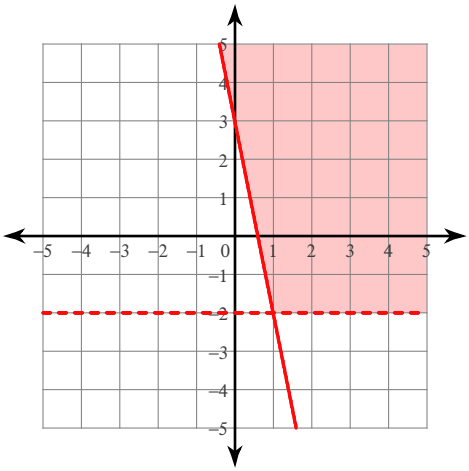

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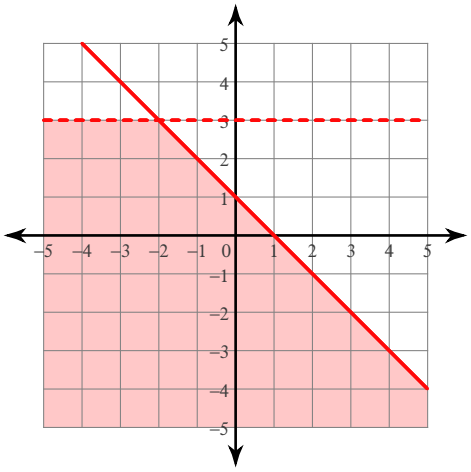

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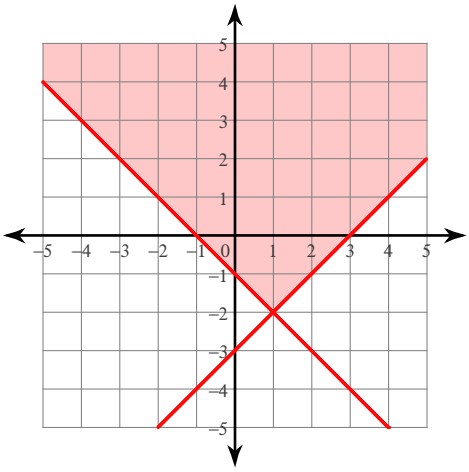

5) $x \leq -3$
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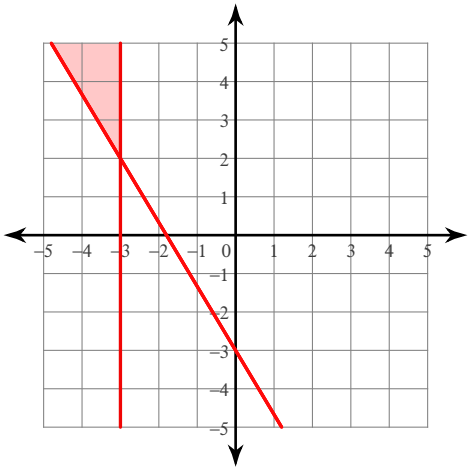
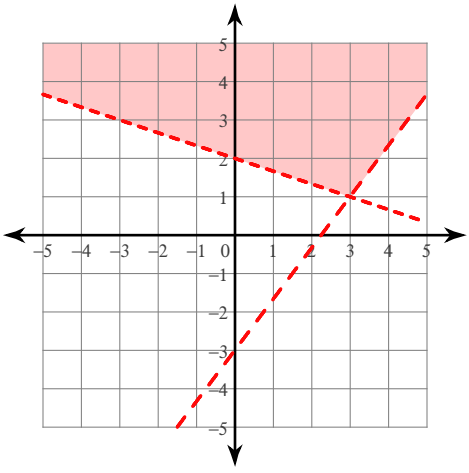


6) $4x - 3y < 9$
$x + 3y > 6$



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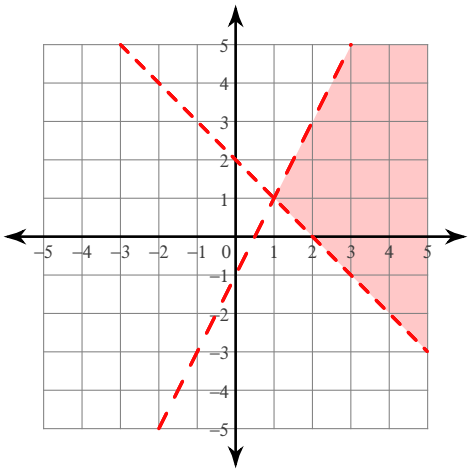

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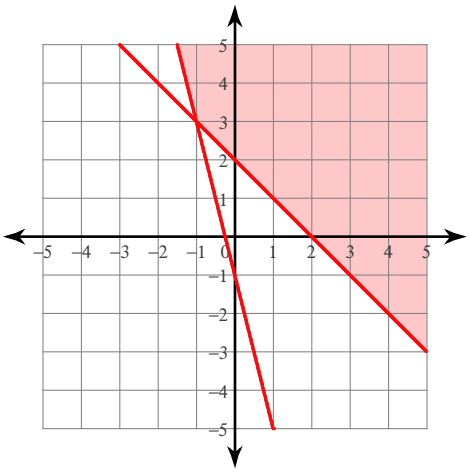

9) $4x + 3y > -6$
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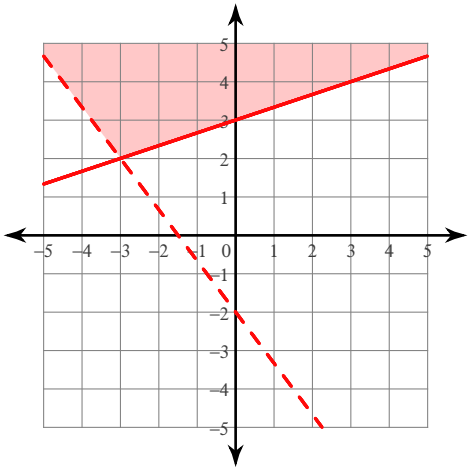

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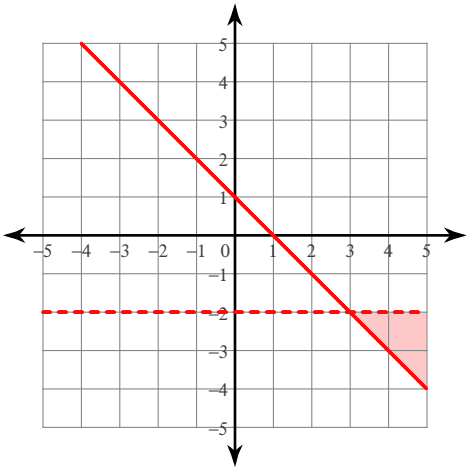

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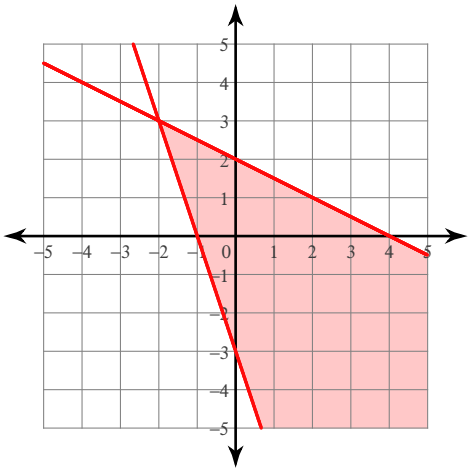

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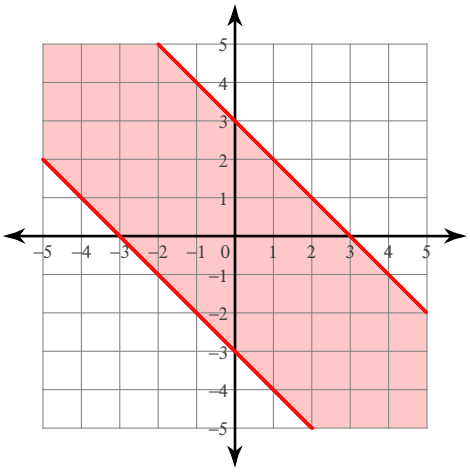

Critical thinking questions:

13) State one solution to the system
$y < 2x - 1$
$y \geq 10 - x$
Many solutions. Ex: $(10, 10)$ or $(5, 8)$

14) Write a system of inequalities whose solution is the set of all points in quadrant I not including the axes.
$x > 0, \quad y > 0$