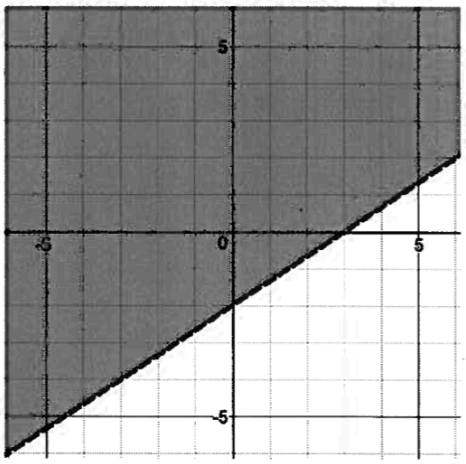
Pre-Calculus 11

Name: KEY
TA: _____

Learning Guide 15 - Test A

TOTAL: /13

1) What is the linear inequality shown below? *(2 marks)*



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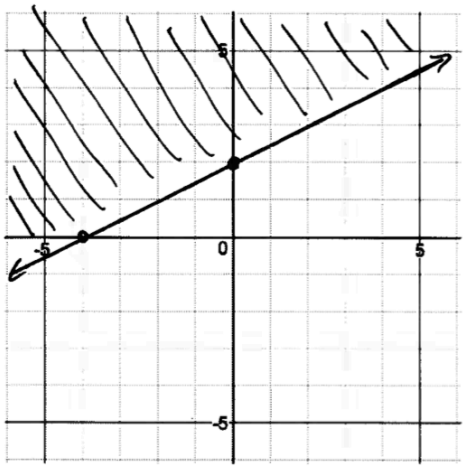
Inequality: $y > \frac{2}{3}x - 2$

OR $2x - 3y - 6 < 0$

2) Graph the solution to the following linear inequality. *(2 marks)*

$$2x - 4y + 8 \leq 0$$



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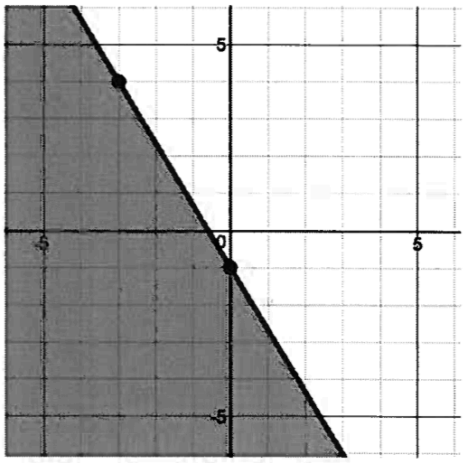
3) What is the linear equality shown below? *(2 marks)*



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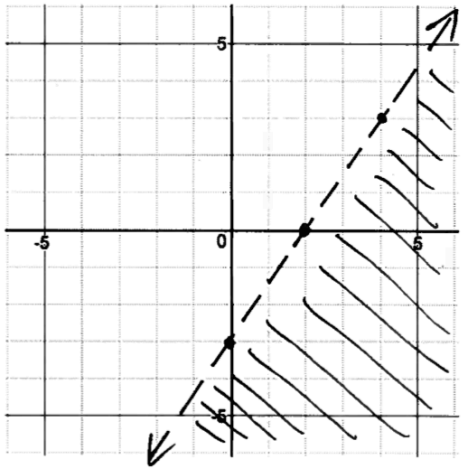
Inequality: $y \leq -\frac{5}{3}x - 1$

OR $5x + 3y + 3 \leq 0$

4) Graph the solution to the following linear inequality. *(2 marks)*

$$3x - 2y - 6 > 0$$



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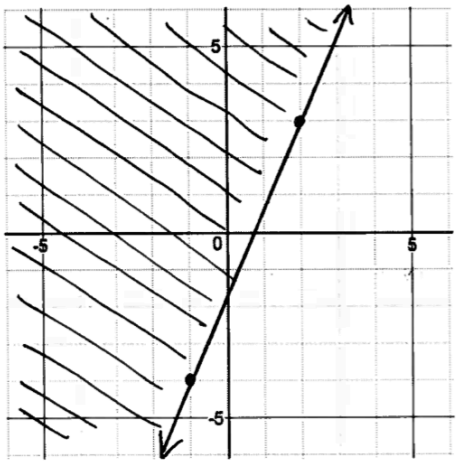
5) The points P(2,3) and Q(-1,-4) are included on the boundary line of an inequality. A test point of (0,0) proves to be part of the solution. *(2 marks)*
Graph the resulting inequality on the grid provided.



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6) A sports store makes a profit of $50 on every pair of cross-country skis sold and $125 on every set of snowshoes sold. The manager's goal is to have a profit of at least $700 per day from the sales of these two items. If *x* represents the number of pairs of cross-country skis sold and *y* represents the number of pairs of snowshoes sold...

a) Circle the inequality which models the combinations of sales that will meet (or exceed) the daily profit goal. *(1 mark)*

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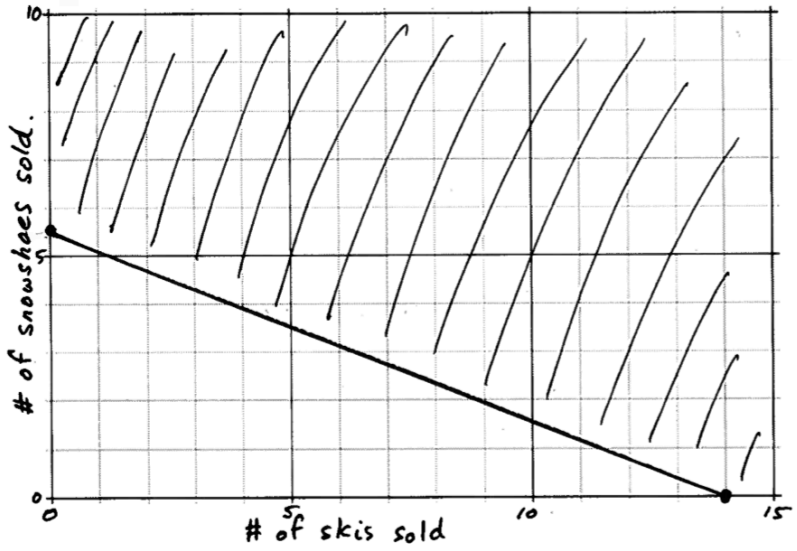
$50y + 125x \leq 700$ $50y + 125x > 700$ (circled) $50x + 125y \geq 700$ $50x - 125y < 700$

b) Graph and label the resulting inequality below. *(2 marks)*



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Whole number (x,y) solutions only in the shaded area actually