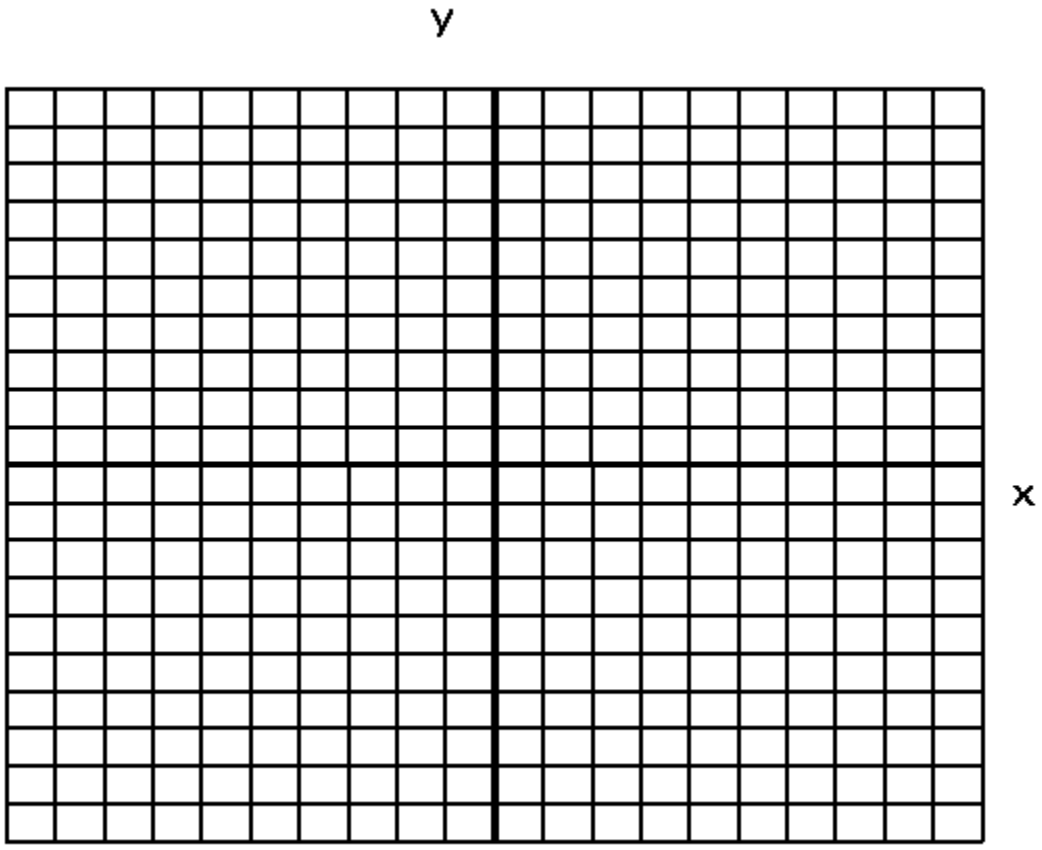
Full Name: _____ TA#: _____ Date: _____

Math 10 F LG 12 Ver. A **Total Marks _____/ 25**
_____ %

Expectation #1: Solve systems of linear equations graphically.

1. Determine the point of intersection of the lines $y = -\frac{5}{2}x$ and $y = -x + 3$ by graphing. Show all your work for full marks. (4 marks)



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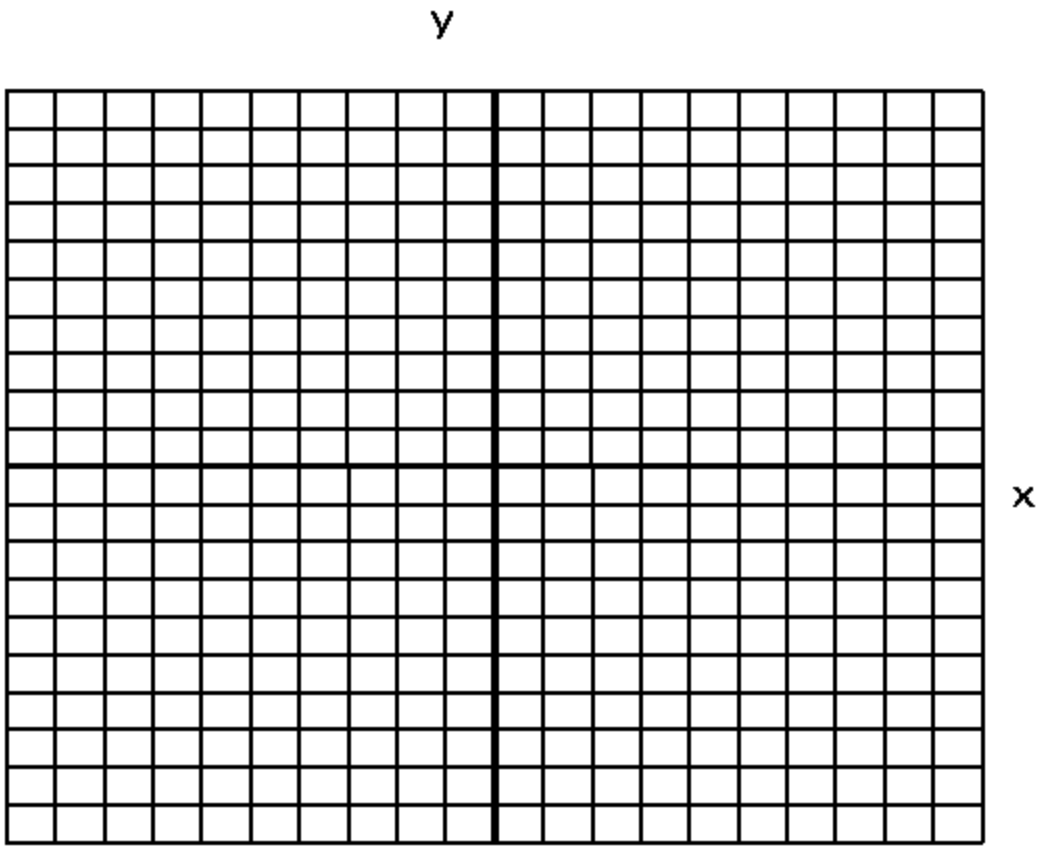
2. Solve the following system of equations by graphing: $5x - 4y = 12$ and $x - y = 1$
Show all your work for full marks. (4 marks)



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Expectation #2: Model and solve linear systems of equations.

3. Write a system of linear equations to model the following situation:
   One gym (GYM A) membership is $85.00 for the first year plus $30.00 per month.
   Another gym (GYM B) membership is just $35.00 per month.
   (a) Which gym would save you money for a 1 year membership?
   (b) Which gym would save you money for a two year membership?
   Show all your work for full marks. (4 marks)

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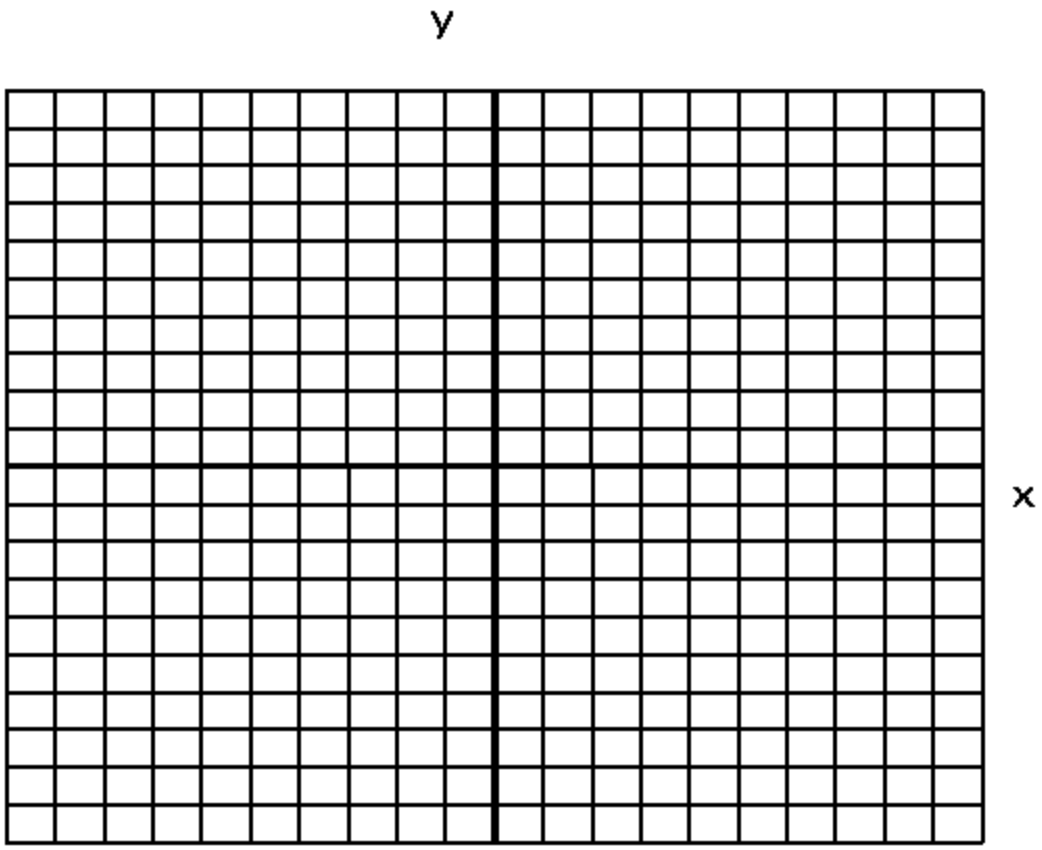
Problem

4. Write a system of linear equations to model the following situation:
Stephanie has five more fish in her aquarium than Brett has in his. The two have a total of 9 fish. How many fish do Stephanie and Brett each have? Solve this system of equations by graphing. Show all your work for full marks. **(5 marks)**



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Expectation #3: Explain why systems of linear equations may have zero, one, or an infinite number of solutions.

5. Determine how many solutions there are to the following linear system without graphing.
$y = x + 1$
$y = 2x - 2$
Show all your work and explain why you know how many solutions exist for full marks.
(4 marks)

/ 4

6. Determine how many solutions there are to the following linear system without graphing.
Show all your work and explain why you know how many solutions exist for full marks.
$x - 2y = 3$
$4y = 2x - 6$
(4 marks)

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