

SEW Math HW 2 Due Monday July 2nd

Please be sure to show all work for full credit.

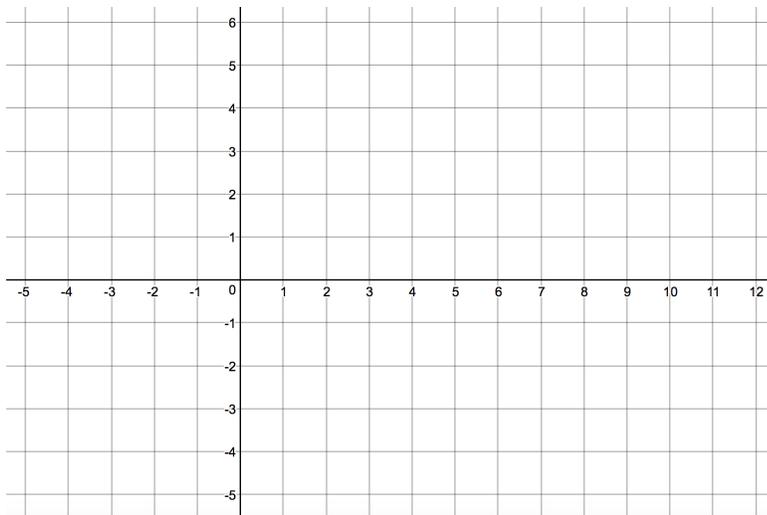
1. Given the system of equations below, answer the following.

$$2x - 3y = 6$$

$$-\frac{1}{3}x + 4 = y$$

- a. Find the x and y intercepts of each linear equation above.

- b. Sketch both lines on the plane below.



- c. Using the graph from part b, estimate the solution to this system of equations.

- d. Check your answer in part c to verify that it is the correct solution (show all work here).

2. Lucian buys he and his friends 4 smoothies and 3 pretzels at the movies for a total of \$24. Nessie buys her friends 2 smoothies and 4 pretzels for a total of \$17. What is the price for one smoothie? How much does one pretzel cost. This was a tax free day special at the theatre!

Please label each variable you use, and set up a system of equations that can be used to solve this.

3. Simplify the following expressions as much as possible. Leave your answers with positive exponents only.

$$3x^{-3}(2y)^{-2}$$

$$(5x^2y^5) \left(\frac{x^3y^{-2}}{w^{-4}} \right)^2$$

4. Multiply and simplify.

$$(3x - 7)^2$$

5. Divide.

$$(5x^3 + 3x^2 - 2x + 24) \div (x + 2)$$