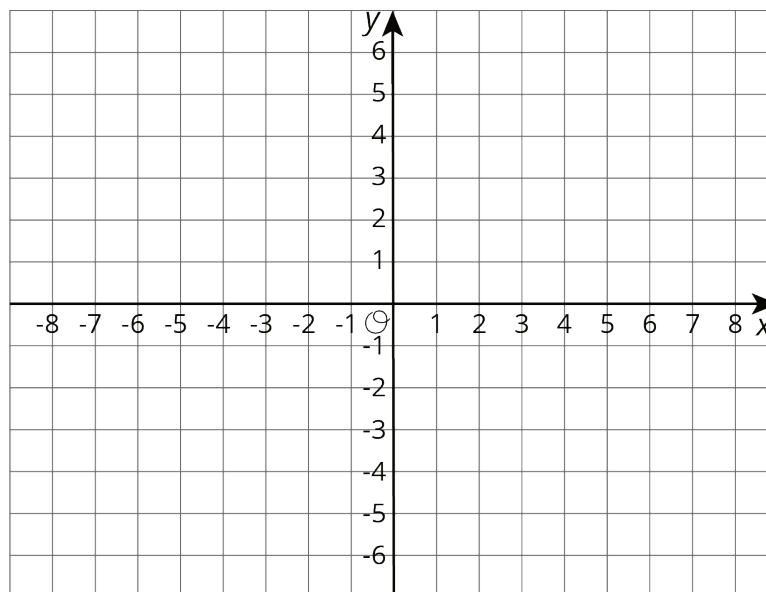


Lesson 12 Practice Problems

- Diego has \$11 and begins saving \$5 each week toward buying a new phone. At the same time that Diego begins saving, Lin has \$60 and begins spending \$2 per week on supplies for her art class. Is there a week when they have the same amount of money? How much do they have at that time?

- Use a graph to find x and y values that make both $y = \frac{-2}{3}x + 3$ and $y = 2x - 5$ true.

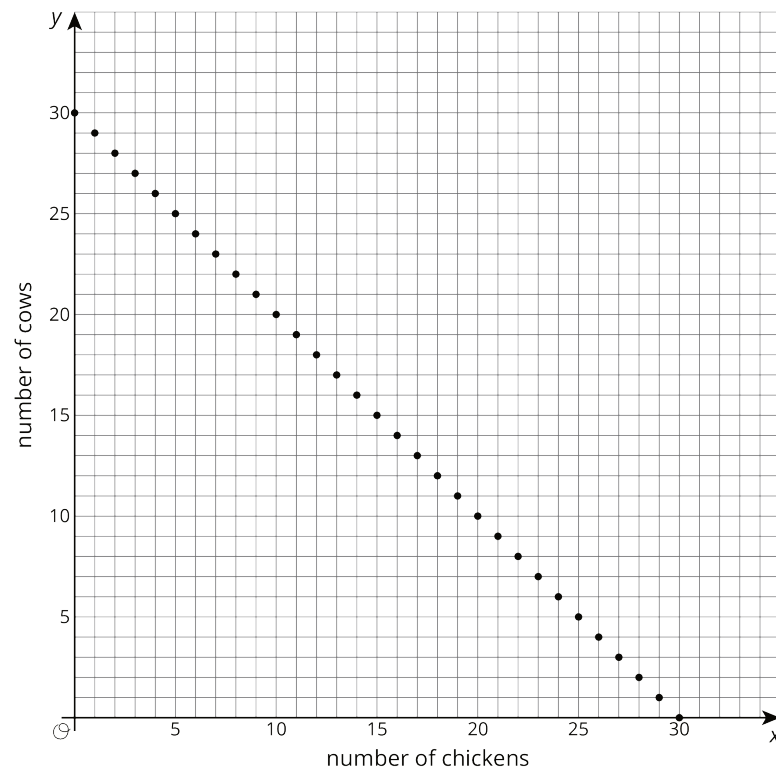


- The point where the graphs of two equations intersect has y -coordinate 2. One equation is $y = -3x + 5$. Find the other equation if its graph has a slope of 1.

4. A farm has chickens and cows. All the cows have 4 legs and all the chickens have 2 legs. All together, there are 82 cow and chicken legs on the farm. Complete the table to show some possible combinations of chickens and cows to get 82 total legs.

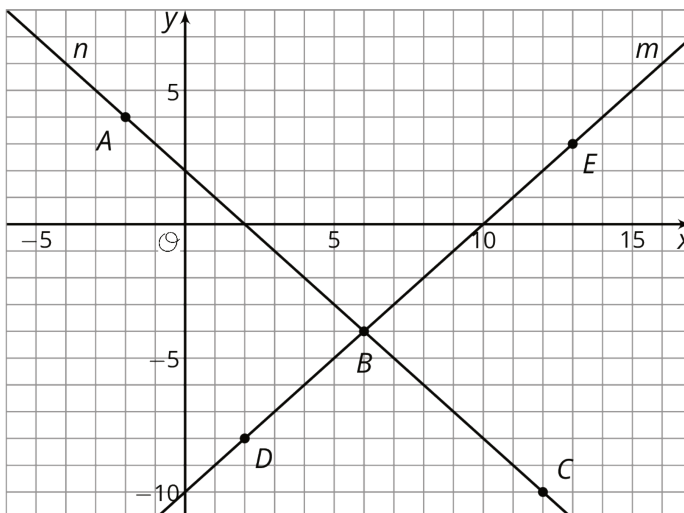
number of chickens (x)	number of cows (y)
35	
7	
	10
19	
	5

Here is a graph that shows possible combinations of chickens and cows that add up to 30 animals:



If the farm has 30 chickens and cows, and there are 82 chicken and cow legs all together, then how many chickens and how many cows could the farm have?

5. a. Match the lines m and n to the statements they represent:



- i. A set of points where the coordinates of each point have a sum of 2
- ii. A set of points where the y -coordinate of each point is 10 less than its x -coordinate

b. Match the labeled points on the graph to statements about their coordinates:

- i. Two numbers with a sum of 2
- ii. Two numbers where the y -coordinate is 10 less than the x -coordinate
- iii. Two numbers with a sum of 2 and where the y -coordinate is 10 less than the x -coordinate

6. Here is an equation: $4x - 4 = 4x + \underline{\hspace{1cm}}$. What could you write in the blank so the equation would be true for:

- a. No values of x
- b. All values of x
- c. One value of x

(From Unit 4, Lesson 15.)