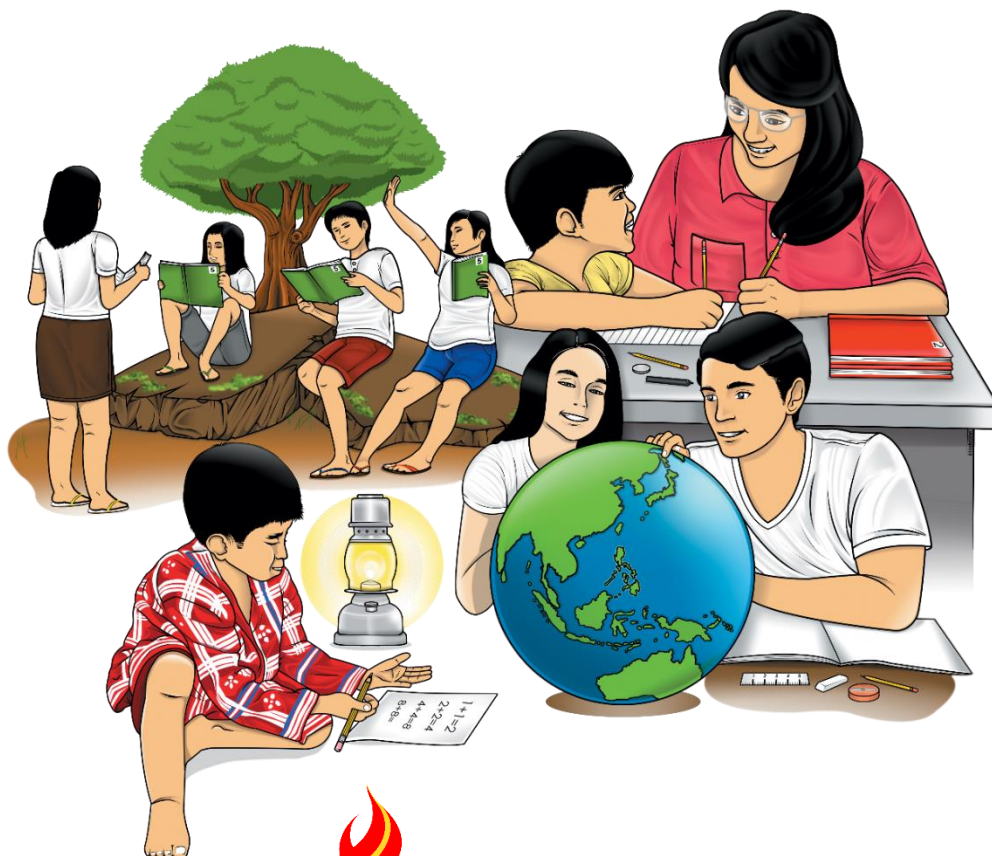


# Mathematics

## Quarter 1 – Module 7

### Illustrating Linear Equations in Two Variables



**Mathematics – Grade 8**  
**Alternative Delivery Mode**  
**Quarter 1 – Module 7 Illustrating Linear Equations in Two Variables**  
**First Edition, 2020**

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# **Mathematics**

**Quarter 1 – Module 7**

**Illustrating Linear Equations  
in Two Variables**

# Introductory Message

For the facilitator:

Welcome to the Mathematics 8 Alternative Delivery Mode (ADM) Module on Illustrating Linear Equations in Two Variables!

This module was collaboratively designed, developed and reviewed by educators both from public and private institutions to assist you, the teacher or facilitator in helping the learners meet the standards set by the K to 12 Curriculum while overcoming their personal, social, and economic constraints in schooling.

This learning resource hopes to engage the learners into guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

As a facilitator, you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Furthermore, you are expected to encourage and assist the learners as they do the tasks included in the module.

For the learner:

Welcome to the Mathematics 8 Alternative Delivery Mode (ADM) on Illustrating Linear Equations in Two Variables!

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning resource while being an active learner.

This module has the following parts and corresponding icons:



***What I Need to Know***

This will give you an idea of the skills or competencies you are expected to learn in the module.



***What I Know***

This part includes an activity that aims to check what you already know about the lesson to take. If you get all the answers correct (100%), you may decide to skip this module.



***What's In***

This is a brief drill or review to help you link the current lesson with the previous one.



***What's New***

In this portion, the new lesson will be introduced to you in various ways; a story, a song, a poem, a problem opener, an activity or a situation.



***What is It***

This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.



***What's More***

This comprises activities for independent practice to solidify your understanding and skills of the topic. You may check the answers to the exercises using the Answer Key at the end of the module.



***What I Have Learned***

This includes questions or blank sentence/paragraph to be filled in to process what you learned from the lesson.



***What I Can Do***

This section provides an activity which will help you transfer your new knowledge or skill into real life situations or concerns.



***Assessment***

This is a task which aims to evaluate your level of mastery in achieving the learning competency.



***Additional Activities***

In this portion, another activity will be given to you to enrich your knowledge or skill of the lesson learned.



***Answer Key***

This contains answers to all activities in the module.

At the end of this module you will also find:

### **References**

This is a list of all sources used in developing this module.

The following are some reminders in using this module:

1. Use the module with care. Do not put unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Don't forget to answer *What I Know* before moving on to the other activities included in the module.
3. Read the instruction carefully before doing each task.
4. Observe honesty and integrity in doing the tasks and checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator. Always bear in mind that you are not alone.

We hope that through this material, you will experience meaningful learning and gain deep understanding of the relevant competencies. You can do it!



## ***What I Need to Know***

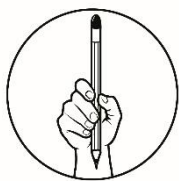
In this module, you will be acquainted with linear equations in two variables which will help you know how the value of a quantity be predicted given the rate of change. The scope of this module enables you to use it in many different learning situations. The lesson is arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

This module contains:

### Lesson 1- Linear Equations in Two Variables

After going through this module, you are expected to:

1. define linear equations in two variables;
2. determine the value of A, B, and C in  $Ax + By = C$ ;
3. evaluate linear equations in two variables;
4. determine other real life situations that can be modeled using linear equations in two variables; and
5. model real life situations using linear equations in two variables.



## ***What I Know***

Read the questions carefully and choose the letter of the correct answer. Write your answer on a separate sheet of paper.

1. If  $A$ ,  $B$ , and  $C$  are real numbers and if  $A$  and  $B$  are both not equal to 0 then  $Ax + By = C$  is called a \_\_\_\_\_.  
A. linear equation in one variable      C. system of linear equations  
B. linear equation in two variables      D. system of linear inequalities
2. Which of the following is the standard form of a linear equation in two variables?  
A.  $y = mx + b$       C.  $Ax + By = C$   
B.  $y = mx - b$       D.  $Ax - By = C$
3. What is  $C$  in the equation  $Ax + By = C$ ?  
A. coefficient      C. slope  
B. constant      D. variable
4. If written in standard form, what is the value of  $B$  in the equation  $4y - 5 = x$ ?  
A.  $-5$       C.  $0$   
B.  $-4$       D.  $1$
5. On his notes on linear equation in two variables, Joshua found an equation  $2x + 3y = 10$ . If you were Joshua, how would you describe the equation according to its form?  
A. It has constant      C. It is in standard form  
B. It has variables      D. It is in slope-intercept form
6. Which statement below DOES NOT satisfy the definition of linear equation in two variables?  
A. It has no variable inside a radical sign.  
B. The equation has variable in the denominator.  
C. The standard form of the equation is  $Ax + By = C$ .  
D. The highest exponent of the variable in each term is 1.
7. In the equation  $Ax + By = 5$ , what happens when  $A$  and  $B$  are both zero?  
A. The equation remains true  
B. The equation is not defined  
C. The graph of the equation is vertical  
D. The graph of the equation is horizontal



If the pattern continues, can you predict the number of households that would have internet connection by year 2025?

- A. Yes, the number of households that have internet connection in 2025 is 85.
  - B. Yes, the number of households that have internet connection in 2025 is 91.
  - C. No, because there are information that are not stipulated in the problem.
  - D. No, because there are many people that cannot afford to subscribe internet connection.
15. During weekends, Marco cleans the basketball court in his barangay and gets paid Php35 per hour and a cash allowance. If you want to compute Mario's total pay given the number of hours  $x$  and a cash allowance  $y$ , which of the following model is appropriate?
- A.  $x + y = \text{total pay}$
  - B.  $x + 35y = \text{total pay}$
  - C.  $35x + y = \text{total pay}$
  - D.  $35x + 35y = \text{total pay}$

## Lesson

# 1

# Linear Equations in Two Variables

Anna and Peter's combined score in an exam is 19. Can we write this algebraically? Is it possible to find their individual score?

Problems like the one above can be solved and modelled using linear equations in two variables. Finding their individual score can be confusing but as long as one score is given you can find the other score.

Let us start this lesson by reviewing some properties of real numbers you have learned in your Mathematics 7.

Enjoy learning!



## *What's In*

**Additive Inverse Property.** The **additive inverse** (or the opposite sign or the negative) of a number  $a$  is the number that, when added to  $a$ , yields zero. In symbol,  $a + (-a) = 0$ .

**Additive Identity Property** states that the sum of any number and 0 is the given number. Zero, "0" is the **additive identity**. In symbol,  $a + 0 = a$

**Multiplicative Inverse Property** The **multiplicative inverse** (or the reciprocal) of a number  $a$  is  $\frac{1}{a}$  that, when multiplied to  $a$ , the product is one. In symbol,  $a \bullet \frac{1}{a} = 1$ .

**Multiplicative Identity Property** states that the product of any number and 1 is the given number,  $a \bullet 1 = a$ . One, "1" is the **multiplicative identity**.

**Commutative Property of Addition.** The order of the addends does not affect the sum. In symbol,  $a + b = b + a$ .

Fill in the blank with an appropriate term to make the equation correct, then determine the property illustrated in each item. Number one is done as your guide.

EQUATION	MISSING TERM	PROPERTY OF EQUALITY
1. $4 + \underline{\hspace{2cm}} = 0$	$\underline{-4}$	<u>Additive Inverse Property</u>
2. $\underline{\hspace{2cm}} + 3x = 3x$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
3. $2x + 3y = 3y + \underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
4. $(\underline{\hspace{1cm}})(5) = 5$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
5. $(\underline{\hspace{1cm}})(7x) = x$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$

Bear these properties in mind for you will be using these in the succeeding discussion.



## What's New

Consider the situation about Anna and Peter's combined score. Complete the table below by finding the score of one student given the score of the other student, then answer the questions that follow.

ANNA'S SCORE	PETER'S SCORE	ANNA + PETER'S SCORE
1		19
	8	19
5		19
	7	19
17		19

### Questions:

- How did you find the activity? Is it difficult to find the score of one student given the score of the other student?
- What will be Peter's score if Anna's score is 17?

3. What will you suggest to Peter to get a better score? Would you do the same as to your suggestion?
4. If Anna's score is represented by a variable  $x$  and Peter's score by a variable  $y$ , how would you write the problem algebraically?
5. The equation you formed in number 4 is an example of linear equation in two variables. What is a linear equation in two variables?



## ***What is It!***

In your previous activity, the combined scores of Anna and Peter can be written as follow:

$$\text{Anna's Score} + \text{Peter's Score} = 19$$

Replacing Anna's score by a variable  $x$  and Peter's score by a variable  $y$ , respectively, the equation becomes:

$$x + y = 19$$

This is an example of a linear equation in two variables.

If  $A$ ,  $B$ , and  $C$  are real numbers, and if  $A$  and  $B$  are not both equal to 0, then  $Ax + By = C$  is called a ***linear equation in two variables***. The numbers  $A$  and  $B$  are the coefficients of the variables  $x$  and  $y$ , respectively, while the number  $C$  is the constant.

The equation  $x + y = 19$  is written in standard form where  $A = 1$ ,  $B = 1$ , and  $C = 19$ . So, when can we say that a linear equation is in its standard form?

The standard form of a linear equation in two variables is written in the order  **$Ax + By = C$** .

Consider the equation below and answer the questions that follow.

$$4y = 6 - 5x$$

Questions:

1. How many variables are used in the equation?
2. How many variable/s in each term?
3. What is the exponent of each variable in each term?
4. Did you see any variable in the denominator?
5. Did you see any variable inside the radical sign?
6. Is the given equation a linear equation in two variables? If so, what are the values of A, B, and C?
7. Is the equation written in standard form? If not, how can we rewrite this in standard form?

The equation  $4y = 6 - 5x$  is a **linear equation in two variables** because:

1. it has two variables,  $x$  and  $y$ ;
2. it has only 1 variable in each term;
3. the exponent of the variable in each term is 1 which means the degree of the equation is 1;
4. there is no variable in the denominator; and
5. there is no variable inside a radical sign.

Although the equation  $4y = 6 - 5x$  is not in standard form because it is not written in the form  $Ax + By = C$ , but this can be transformed into standard form as follows:

$4y = 6 - 5x$	<i>Given</i>
$4y + 5x = 6 - 5x + 5x$	<i>Additive Inverse Property</i>
$4y + 5x = 6 - 0$	<i>Simplified</i>
$4y + 5x = 6$	<i>Additive Identity Property</i>
$5x + 4y = 6$	<i>Commutative Property of Addition/ Standard Form</i>

Therefore,  $5x + 4y = 6$  is now written in standard form where  $A = 5$ ,  $B = 4$ , and  $C = 6$ .

A linear equation in two variables have many sets of ordered pair that satisfies the equation.

This time, we will find possible values of  $x$  and  $y$  that will satisfy the equation  $5x + 4y = 6$ . What do you think are the values of  $x$  and  $y$ ?

### Illustrative Examples

- Find at least 2 ordered pairs that satisfy the equation  $5x + 4y = 6$ .

Solution:

To do this, we will **assign** any value of  $x$ , **substitute** it to the equation to solve for the value of  $y$ .

If  $x = 0$ , then

$5x + 4y = 6$	<i>Given</i>
$5(0) + 4y = 6$	<i>Substitution</i>
$0 + 4y = 6$	<i>Simplified</i>
$4y = 6$	<i>Additive Identity Property</i>
$\left[\frac{1}{4}\right][4y] = 6\left[\frac{1}{4}\right]$	<i>Multiplicative Inverse Property</i>
$y = \frac{6}{4}$	<i>Multiplicative Identity Property</i>
$y = \frac{3}{2}$	<i>Simplified</i>

The ordered pair  $\left(0, \frac{3}{2}\right)$  satisfies the equation  $5x + 4y = 6$ .

If  $x = -1$ , then

$5x + 4y = 6$	<i>Given</i>
$5(-1) + 4y = 6$	<i>Substitution</i>
$-5 + 4y = 6$	<i>Simplified</i>
$-5 + 5 + 4y = 6 + 5$	<i>Additive Inverse Property</i>
$0 + 4y = 11$	<i>Simplified</i>
$4y = 11$	<i>Additive Identity Property</i>
$\left[\frac{1}{4}\right][4y] = 11\left[\frac{1}{4}\right]$	<i>Multiplicative Inverse Property</i>
$y = \frac{11}{4}$	<i>Multiplicative Identity Property /</i>
	<i>Simplified</i>

The ordered pair  $\left(0, \frac{11}{4}\right)$

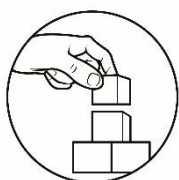
2. Determine if the ordered pair  $(2, -3)$  satisfies the equation  $2x - y = 7$ .

Solution:

In the given ordered pair,  $x = 2$  and  $y = -3$ . Substituting each value, we have

$$\begin{aligned}2x - y &= 7 \\2(2) - (-3) &= 7 \\4 + 3 &= 7 \\7 &\stackrel{\checkmark}{=} 7\end{aligned}$$

Hence, the ordered pair  $(2, -3)$  satisfies the given equation.



## ***What's More***

### **Activity 1: Yes or No!**

Write **YES** if each equation below is a linear equation in two variables, otherwise, **NO**.

1.  $3x - 11y = 7$
2.  $5x^2 + 4y = 6$
3.  $x - \frac{1}{9}y = -9$
4.  $\frac{1}{x} + 8\sqrt{y} = 10$
5.  $y - 2x - 15 = 0$

Things to remember in identifying linear equation in two variables:

- It has two variables.
- There is NO more than one variable in each term.
- The exponent of the variable in each term is 1 (or the degree of the equation is 1).
- There is NO variable in the denominator.
- There is NO variable inside radical sign.
- Generally, it is written in the form  $Ax + By = C$ .

### Activity 2: Put me into your standard!

Write each of the following linear equations in two variables in standard form.

1.  $4y - 12 = 3x$
2.  $3 + x = \frac{1}{2}y$
3.  $7x + 5y + 25 = 0$
4.  $13 = x - y$
5.  $3y = 20 - \sqrt{2}x$

### Activity 3: Find my pair!

Match each linear equation in Column A to its corresponding ordered pair in Column B.

#### COLUMN A

1.  $3x - y = 9$
2.  $x - 5y = 2$
3.  $x - y = 16$
4.  $2x - y = 5$
5.  $x - 3y = 4$

#### COLUMN B

- A.  $(-2, -2)$
- B.  $(-2, 4)$
- C.  $(1, -3)$
- D.  $(3, 0)$
- E.  $(12, 2)$
- F.  $(20, 4)$

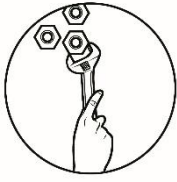


## What I Have Learned

Complete the paragraph below by filling in the blanks with correct word/s or figure/s which you can choose from the box below. Each word or figure may be used repeatedly. Write your answer on a separate sheet.

A	one	some	standard form	inside radical
B	two	few	$Ax + By = C$	outside radical
C	three	many	assigning	substituting
D	four	degree 1	not a linear equation	
E	five	denominator	a linear equation	

Many real life situations such as budgeting, finding the rate, making predictions, finding the cost, and the like, can be modelled using linear equations. A linear equation in two variables is an equation that has \_\_\_\_\_ variables. You can use any variable other than  $x$  and  $y$  provide that no more than \_\_\_\_\_ variable in each term. The exponent of the variable in each term is \_\_\_\_\_, hence, it is an equation of \_\_\_\_\_. If you can see a variable in the \_\_\_\_\_ or \_\_\_\_\_ sign, then it is \_\_\_\_\_ in two variables. This can be written in the form \_\_\_\_\_ which is the \_\_\_\_\_. The coefficients of the variables  $x$  and  $y$  are \_\_\_\_\_ and \_\_\_\_\_, respectively, and the constant is \_\_\_\_\_. You can find an ordered pair that satisfies a linear equations in two variables by \_\_\_\_\_ values of  $x$  or  $y$  and then by \_\_\_\_\_ it to the equation to find the value of the other variable. There are \_\_\_\_\_ possible set of ordered pairs that satisfy a linear equation in two variables.



## ***What I Can Do***

Read the problem below and answer the questions that follow.

*In year 2020, an emerging disease called Corona Virus Disease 2019 (COVID-19) put the world into a pandemic. Governments encouraged the public to observe safety protocols such as physical distancing, proper hygiene, and to maintain healthy lifestyle. Because of this, Jose's mother wanted to boost her children's immune system to fight the disease. She allotted in her weekly budget an exact amount of Php300 to buy fruits that would help boost the immune system. In the market, the cost of papaya per kilogram is Php40 while kalamansi is Php70 per kilograms.*

- a. Let  $x$  represent the papaya,  $y$  the kalamansi, model a linear equation in two variables and write it in standard form.
- b. What are the values of A, B, and C in the modelled equation?
- c. If she buys 2 kilograms of kalamansi, how many kilograms of papaya can she buy to cost her a total of Php300?
- d. If due to scarcity of supply, papaya and kalamansi are unavailable in the market, what other alternative fruits that can boost the immune system would you suggest to Jose's mother?



## Assessment

Read the questions carefully and choose the letter of the correct answer. Write your answer on a separate sheet of paper.

- Which of the following is a linear equation in two variables?  
A.  $x - \frac{1}{y} = 5$   
B.  $\sqrt{x} - 2y = 7$   
C.  $x + 6y^3 = 9$   
D.  $3x + \sqrt{5}y = 2$
- Which of the following linear equations in two variables is written in standard form?  
A.  $2y = 3x - 4$   
B.  $5x = 7 - 4y$   
C.  $x - y = 11$   
D.  $6x - 8y + 7 = 0$
- Given the equation  $13 - 7y = 4x$ , what is the value of the coefficient  $A$ ?  
A.  $-7$   
B.  $-4$   
C.  $4$   
D.  $13$
- What makes  $\frac{5}{2} = xy$  NOT a linear equation in two variables?  
A. The equation contains fraction.  
B. The degree of the equation is two.  
C. The left side of the equation has only one term.  
D. The constant should be written on the right side.
- The following statements below are true about linear equation in two variables *except* one.  
A. The coefficients  $A$  and  $B$  can be any real number.  
B. It can be written in standard form  $Ax + By = C$ .  
C. It has no variable in the denominator.  
D. The degree of the equation is one.
- What will be the value of  $B$  in the equation  $3x - By = 15$  if  $x = 4$  and  $y = 3$ ?  
A.  $-9$   
B.  $-1$   
C.  $1$   
D.  $9$
- In the equation  $2x + 3y = 7$ , when  $y = 1$ , which would be the corresponding value of  $x$ ?  
A.  $-2$   
B.  $0$   
C.  $2$   
D.  $4$

8. What is the value of  $y$  in the equation  $x - 2y = 4$  given that  $x = 8$ ?
- A.  $-4$
- B.  $-2$
- C.  $2$
- D.  $4$
9. If written in standard form, what are the values of  $A$ ,  $B$ , and  $C$  in the equation  $2x = 4(-y + 5)$ ?
- A.  $A = 2$ ,  $B = -4$ ,  $C = 5$
- B.  $A = 2$ ,  $B = -4$ ,  $C = 20$
- C.  $A = 2$ ,  $B = 4$ ,  $C = 5$
- D.  $A = 2$ ,  $B = 4$ ,  $C = 20$
10. Which equation below satisfies the ordered pair  $(-2, -7)$ ?
- A.  $2y = x + 17$
- B.  $5x = 12 - y$
- C.  $11x - y = -15$
- D.  $10x + 2y = 34$
11. Jake was tasked by his teacher to find the value of  $x$  in the linear equation  $5x + 3y = 21$  given that  $y = 2$ . His solution is shown below.

$$\begin{aligned} 5x + 3y &= 21 \\ 5x + 3(2) &= 21 \\ 5x + 6 &= 21 \\ 5x + 6 - 6 &= 21 + 6 \\ x &= 3 \end{aligned}$$

Is his solution correct?

- A. Yes, because he substituted the variable  $y$  by 2.  
B. Yes, because he followed the process of evaluating linear equation.  
C. No, because twenty-one plus six is twenty-seven.  
D. No, because he is supposed to add of negative six to twenty-one.

For items 12 to 15, refer to the situation below.

Mrs. Flores followed a new weight loss program introduced by her friend. With the hope that the program works for her, she monitored her progress and recorded her weight weekly as follows:

Week	0	1	2	3	4	5
Weight (in kg)	78	76.5	75	73.5	72	71.5

12. If the pattern continues, can you predict her weight on the 10<sup>th</sup> week of the program?
- A. Yes, her weight by the 10<sup>th</sup> week is 60.
  - B. Yes, her weight by the 10<sup>th</sup> week is 63.
  - C. No, because she might be tempted to cheat.
  - D. No, because there is not enough information.

13. If  $y$  represents Mrs. Flores' weight and  $x$  represents the number of weeks she stays in the program, which equation is appropriate for the situation?

A.  $x + y = 78$

C.  $1.5x + y = 78$

B.  $x - y = 78$

D.  $1.5x - y = 78$

14. How many weeks will she have to stay in the program for her to weigh 60 kilograms?

A. 13

C. 11

B. 12

D. 10

15. If you are Mrs. Flores what piece of advice could you give to those who are on diet to successfully lose weight?

A. Eat as much foods and exercise more.

B. Eat nutritious foods and exercise regularly.

C. Eat any food once a day and exercise less.

D. Eat three times a day and sleep very late at night.

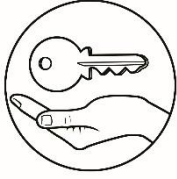


## ***Additional Activities***

### **I Can Do It Independently!**

Solve each of the following problems.

1. The difference of two variables  $x$  and  $y$  is 7. Find two ordered pairs that satisfy this equation if the values of  $y$  are 1 and 3.
2. The linear equation  $3x + y = 9$  has  $x$  values equal to 0 and 2. Find two ordered pairs that satisfy the equation using those values.



# Answer Key

**What I Know**

1. B
2. C
3. B
4. B
5. C
6. B
7. B
8. C
9. C
10. A
11. B
12. D
13. A
14. A
15. C

**What's In**

1. -4 ; Additive Inverse
2. Property
3. 0 ; Additive Identity
4. Property
5.  $2x$  ; Commutative
6. Property of Addition
7. 1 ; Multiplicative Identity
8. Property
9.  $\frac{1}{7}$  ; Multiplicative Inverse
10. Property

**What's New**

Anna + Peter's Score	Peter's Score	Anna's Score
19	18	1
19	8	11
19	14	5
19	7	12
19	2	17

Questions:

1. Answer vary
- 2.
3. Answer vary
4.  $x + y = 19$
5. A linear equation in two variables is an equation of the form  $Ax + By = C$ , where  $A$ ,  $B$ , and  $C$  are real numbers,  $A$  and  $B$  are not both equal to 0.

**What's More**

**Activity 1:**

1. YES
2. NO
3. YES
4. NO
5. YES

**Activity 2:**

1.  $3x - 4y = -12$
2.  $x - \frac{1}{2}y = 3$  or  $-3x + 4y = 12$
3.  $7x + 5y = -25$
4.  $x - y = 13$
5.  $-\sqrt{2}x + 3y = 20$  or  $\sqrt{2}x - 3y = -20$

**Activity 3:**

1. D
2. E
3. F
4. C
5. A

**Note:** You are encouraged to write the first term (the  $Ax$  term) with positive sign. Multiply the whole equation by  $-1$  whenever  $Ax$  term in  $Ax + By = C$  is negative and simplify.

**What I Have Learned**

Many real life situations such as budgeting, finding the rate, making predictions, finding the cost, and the like, can be modelled using linear equations. A linear equation in two variables is an equation that has **two** variables. You can use any variable other than  $x$  and  $y$  provide that no more than **one** variable in each term. The exponent of the variable in each term is **one**, hence, it is an equation of degree 1. If you can see a variable in the **denominator** or **inside the radical** sign, then it is **a linear equation** in two variables. This can be written in the form  **$Ax + By = C$**  which is the **standard form**. The coefficients of the variables  $x$  and  $y$  are **A** and **B**, respectively, and the constant is **C**. You can find an ordered pair that satisfies a linear equations in two variables by **assigning** it to the  $y$  and then by **substituting** it to the equation to find the value of the other variable. There are **many** possible set of ordered pairs that satisfy a linear equation in two variables.

**What I Can Do**

- $40x + 70y = 300$
- $A = 40, B = 70, C = 300$
- $(4, 2)$
- Answer varies.

**Assessment**

1. D
2. C
3. C
4. B
5. A
6. B
7. C
8. C
9. D
10. C
11. D
12. B
13. C
14. B
15. B

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[https://people.ucsc.edu/~miglior/chapter%20pdf/Ch02\\_SE.pdf](https://people.ucsc.edu/~miglior/chapter%20pdf/Ch02_SE.pdf)

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