

Grade 8
Math Remote Learning Assignments
Week 2: March 30th - April 3rd

Day	Assignments
Monday 3/30/2020	<u>Week 2 Day 1</u> Part A: Watch Video & Guided Practice Part B: Fluency Practice Part C: Solve problems Independently following the SMP Part D: Complete the Exit Ticket using this Illuminate link
Tuesday 3/31/2020	<u>Week 2 Day 2</u> Part A: Watch Video & Guided Practice Part B: Fluency Practice Part C: Solve problems Independently following the SMP Part D: Complete the Exit Ticket using this Illuminate link
Wednesday 4/1/2020	<u>Week 2 Day 3</u> Part A: Watch Video & Guided Practice Part B: Fluency Practice Part C: Solve problems Independently following the SMP Part D: Complete the Exit Ticket using this Illuminate link
Thursday 4/2/2020	<u>Week 2 Day 4</u> Part A: Watch Video & Guided Practice Part B: Fluency Practice Part C: Solve problems Independently following the SMP Part D: Complete the Exit Ticket using this Illuminate link
Friday 4/3/2020	Flex Day - review your work from the week and catch up if necessary. No illuminate submission - Happy Friday!

**You must know your ID number in order to submit your answers in Illuminate. If you do not know your ID number, please let your teacher know and they can help you.*

Name: _____

Objective: SWBAT solve systems of linear equations graphically and describe their solutions.

Lesson Overview

- A. **Khan Academy:** Watch “Systems of equations with graphing” and guided practice video.
- B. **IXL Skills:** Practice necessary skills on IXL.
 - Y.11 Convert a linear equation in standard form to slope-intercept form
 - Y.12 Graph a line from an equation in standard form
 - AA.2 Solve a system of equations by graphing
- C. **Short Answers:** Complete 3 short answer problems.
- D. **Exit Ticket:** Complete 2 multiple choice questions and submit them on illuminate.

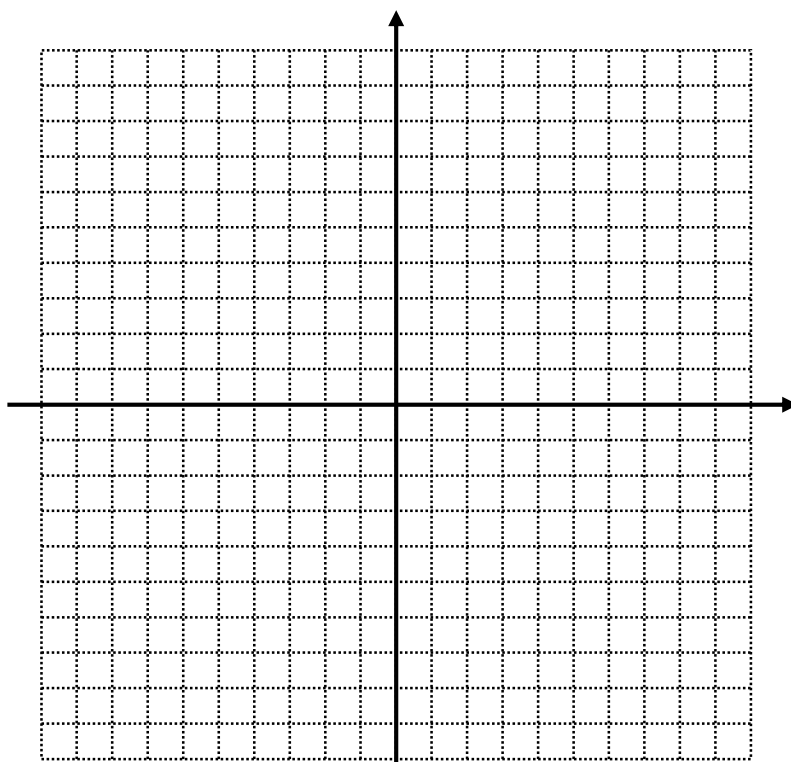
PART A: Khan Academy & Guided Practice

1. Watch the video [Systems of equations with graphing](#) on Khan Academy for a general explanation of how to complete this standard. Follow [this link](#) to read about the topic.
2. Complete the guided practice below alongside [this video](#).

Find the solution to the following system of equations by graphing.

$$y = \frac{7}{5}x - 5$$

$$y = \frac{3}{5}x - 1$$



PART B: Fluency - Log onto IXL and complete the following exercise.

Target Skill: Practice the skill linked below for at least 15 minutes or until you achieve a score higher than 70.

[AA.2 Solve a system of equations by graphing](#)

Supporting Skills: These are skills that are necessary to master the Target Skill.

[Y.11 Convert a linear equation in standard form to slope-intercept form](#)

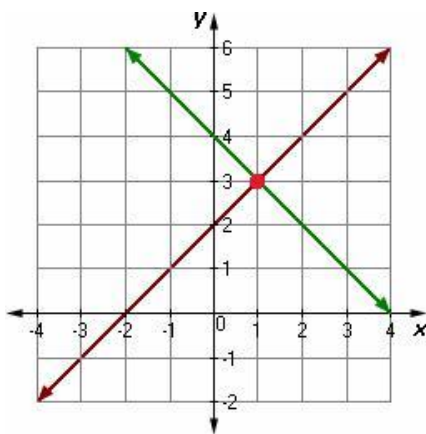
[Y.12 Graph a line from an equation in standard form](#)

PART C: Independent Practice

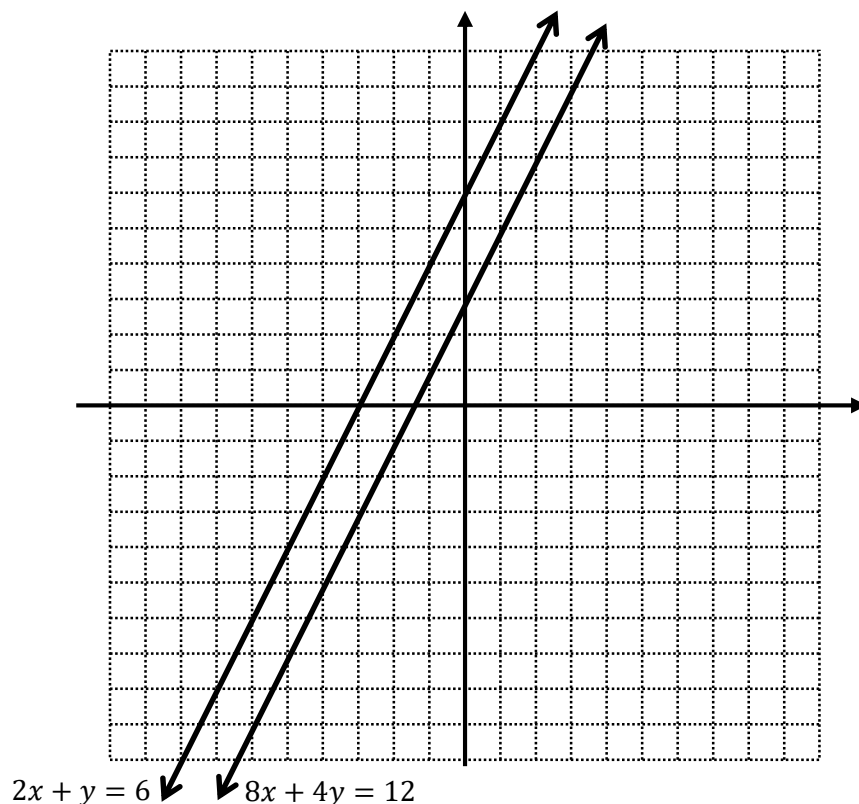
1. Hannah looks at the system of equations below and claims that the points $(0, 2)$ and $(0, 4)$ are solutions to the system of equations because they are y-intercepts. Explain the error in Hannah's thinking.

$$y = x + 2$$

$$y = -x + 4$$



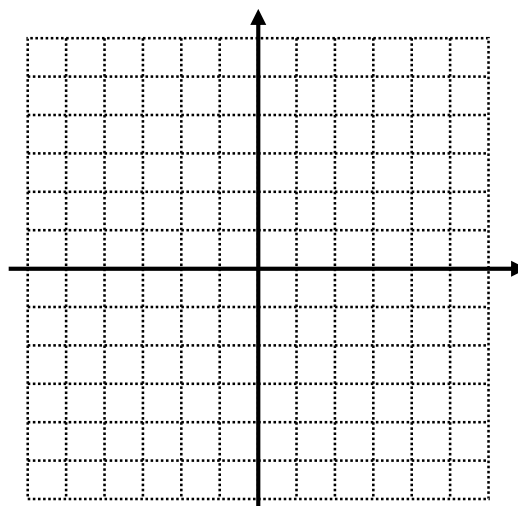
2. Lori graphed the system of equations $8x + 4y = 12$ and $2x + y = 6$ on the graph below.



What should she conclude about the solution to this system of equation? Explain.

3. Find the solution to the system of equations below by graphing.

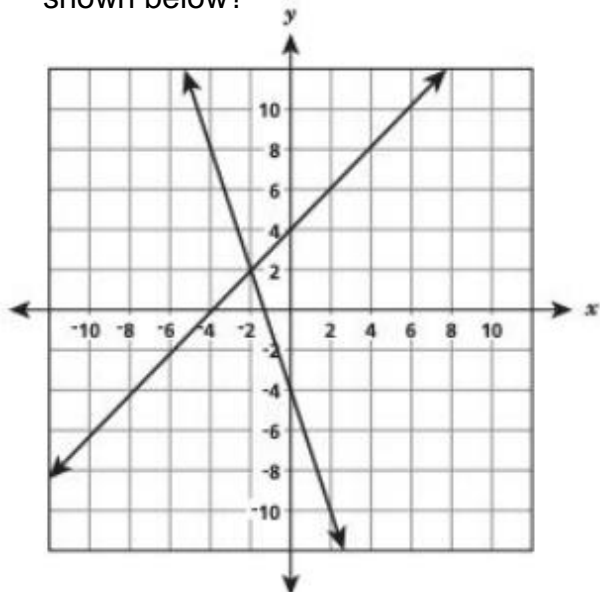
$$y = -x + 3$$
$$-6x + 2y = -2$$



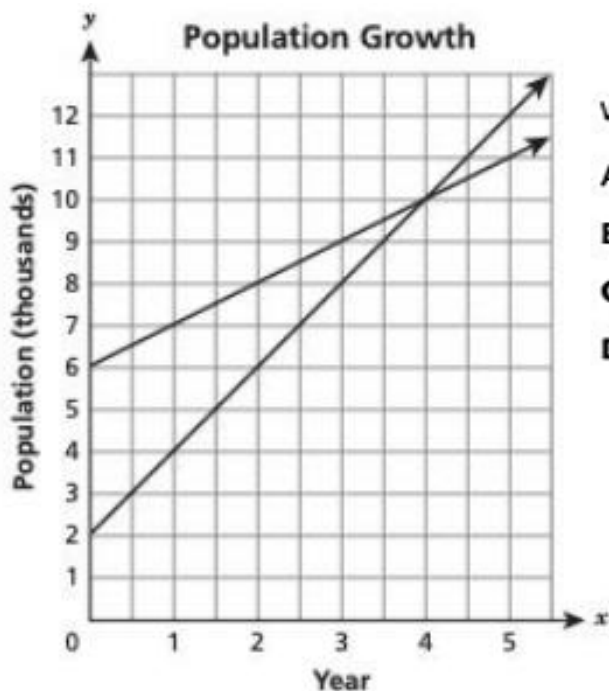
Part D: Exit Ticket

Submit your answers online using [this Illuminate link](#).

1. Which statement explains why the point $(-2, 2)$ is the solution to the system of linear equations shown below?



- A** It lies on the graph of only one of the equations.
- B** It lies in the second quadrant of the coordinate plane.
- C** It is the only point that satisfies both equations simultaneously.
- D** It is one of many points that satisfies both equations simultaneously.
2. The population growth of two towns over a period of five years is represented by the system of equations below, both algebraically and graphically.



Which ordered pair is the solution to the system of equations?

- A** $(2, 6)$
- B** $(4, 10)$
- C** $(6, 2)$
- D** $(10, 4)$

Name: _____

Objective: SWBAT solve systems of two linear equations in two variables by using elimination.

Lesson Overview

- A. **Khan Academy:** Watch “Systems of equations with elimination” and guided practice video.
- B. **IXL Skills:** Practice necessary skills on IXL.
AA.10 Solve a system of equations using elimination
- C. **Short Answers:** Complete 3 short answer problems.
- D. **Exit Ticket:** Complete 2 multiple choice questions and submit them on illuminate.

PART A: Khan Academy & Guided Practice

1. Watch the video [Systems of equations with elimination](#) on Khan Academy for a general explanation of how to complete this standard. Follow [this link](#) to read about the topic.
2. Solve the guided practice below alongside [this video](#).

Use elimination to solve for x and y .

$$-3y + 4x = 11$$

$$y + 2x = 13$$

PART B: Fluency - Log onto IXL and the following exercise.

Target Skill: Practice the skill linked below for at least 15 minutes or until you achieve a score higher than 70.

[AA.10 Solve a system of equations using elimination](#)

PART C: Independent Practice

1. Solve the system of equation using the elimination method. State the solution.

$$2x + 3y = 17$$

$$4x - 3y = 7$$

2. Solve the system of equation using the elimination method. State the solution.

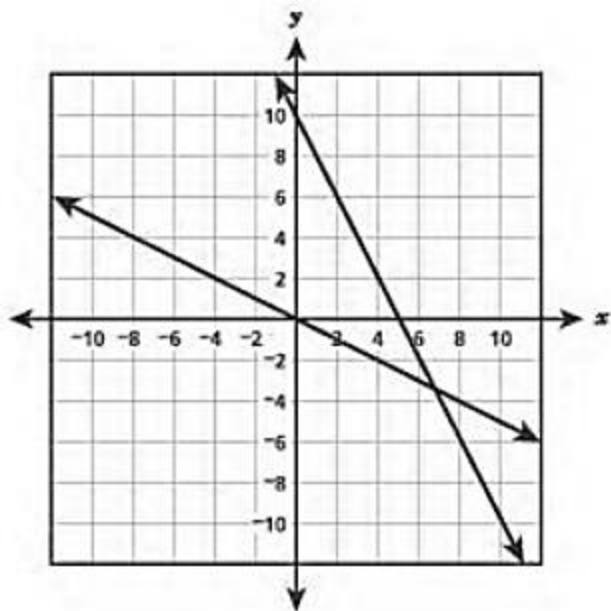
$$4x - 5y = -2$$

$$8x - 10y = -4$$

Part D: Exit Ticket

Submit your answers online using [this Illuminate link](#)

1. The graph of a system of equations is shown below.



What system of equations represents the graph?

A $y = -2x + 10$

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

B $y = -2x + 10$

$y = -\frac{1}{2}x$

C $y = -\frac{1}{2}x + 10$

$y = -2x$

D $y = -\frac{1}{3}x + 10$

$y = -2x$

2. Solve the system of equations below.

$$2x + 4y = 10$$

$$2x + 4y = -10$$

A $x = 3, y = 1$

B $x = 6, y = -4$

C No solution

D Infinitely many solutions

Name: _____

Objective: SWBAT solve real-world and mathematical problems leading to two linear equations in two variables.

Lesson Overview

- A. **Khan Academy:** Watch “Systems of equations: trolls, tolls (1 of 2)” and guided practice video.
- B. **IXL Skills:** Practice necessary skills on IXL.
AA.11 Solve a system of equations using elimination: word problems
- C. **Short Answers:** Complete 3 short answer problems.
- D. **Exit Ticket:** Complete 2 multiple choice questions and submit them on illuminate.

PART A: Khan Academy & Guided Practice

1. Watch the video [Systems of equations: trolls, tolls \(1 of 2\)](#) on Khan Academy for a general explanation of how to complete this standard.
2. Solve the system of equations as shown in [Systems of equations: trolls, tolls \(2 of 2\)](#)

PART B: Fluency - Log onto IXL and the following exercise.

Target Skill: Practice the skill linked below for at least 15 minutes or until you achieve a score higher than 70.

[AA.10 Solve a system of equations using elimination](#)

PART C: Independent Practice

1. A language arts test is worth 100 points. There are a total of 26 questions. There are spelling word questions that are worth 2 points each and vocabulary word questions worth 5 points each. A system of equations to represent the situation is shown below.

$$x + y = 26$$

$$2x + 5y = 100$$

Describe the meaning of the solution (10, 16) in this context.

2. Two numbers have a sum of 120 and a difference of 10. What are the two numbers?

3. Yesenia has 59 total coins for a total of \$12.05. Yesenia only has quarters and dimes. How many of each coin does Yesenia have?

Part D: Exit Ticket

Submit your answers online using [this Illuminate link](#)

1.

Mr. Thomsen is buying two types of gift cards to give as prizes to employees at a company meeting. He will buy restaurant gift cards that each cost \$50. He will also buy movie theater gift cards that each cost \$20. He has \$450 to buy a total of 15 gift cards. How many of each type of gift card can Mr. Thomsen buy?

- A He can buy 5 restaurant gift cards and 10 movie theater gift cards.
- B He can buy 8 restaurant gift cards and 7 movie theater gift cards.
- C He can buy 10 restaurant gift cards and 5 movie theater gift cards.
- D He can buy 12 restaurant gift cards and 3 movie theater gift cards.

2.

Jenny wants to rent a truck for one day. She contacted two companies. Laguna's Truck Rentals charges \$20 plus \$2 per mile. Salvatori's Truck Rentals charges \$3 per mile. After how many miles will the total cost for both companies be the same?

- A 4
- B 6
- C 20
- D 60

Name: _____

Objective: SWBAT apply the properties of integer exponents to generate equivalent expressions.

Lesson Overview

- A. **Khan Academy:** Review the properties of exponents.
- B. **IXL Skills:** Practice necessary skills on IXL.
 - F.13 Identify equivalent expressions involving exponents I
 - F.14 Identify equivalent expressions involving exponents II
- C. **Short Answers:** Complete 3 short answer problems.
- D. **Exit Ticket:** Complete 2 multiple choice questions and submit them on illuminate.

PART A: Khan Academy

1. [Review the properties of exponents.](#)

PART B: Fluency - Log onto IXL and the following exercise.

Target Skill: Practice the skills linked below for at least 15 minutes or until you achieve a score higher than 70.

[F.13 Identify equivalent expressions involving exponents I](#)

[F.14 Identify equivalent expressions involving exponents II](#)

Supporting Skills: These are skills that are necessary to master the Target Skill.

[F.6 Understanding negative exponents](#)

PART C: Independent Practice

1. What is the value of 1^9 ? Explain.

2. How would you simplify the expression $x^{-3} * x^4$? Explain

.

3. Determine the value of n in the equation below.

$$5^{14} = (5^n)^2$$

Part D: Exit Ticket

Submit your answers online using [this Illuminate link](#).

1.

Simplify.

$$5^{-8} \times 5^4$$

A $\frac{1}{5^4}$

B $\frac{1}{5^{32}}$

C -5^2

D -5^{12}

2.

Which exponential expression is equal to $2^{-5} \cdot 2^8$?

A $\frac{2^2}{2^{-1}}$

B $(2^3)^{-1}$

C $\frac{2^{-2}}{2^{-1}}$

D $(2^{-1})^3$