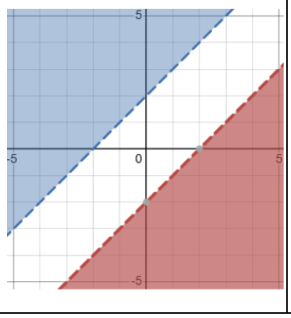
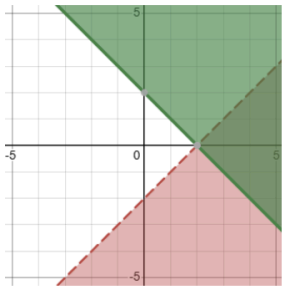
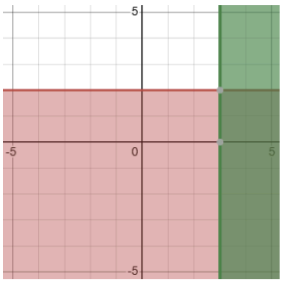
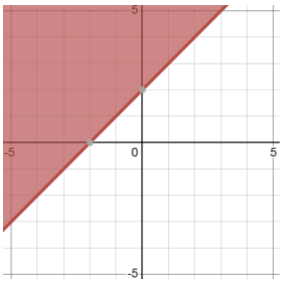
Mr. Leonardo/Mr. Kui Lesson Plan

Date: 12/9/25	Grade: 9	Subject: Algebra 1 - ICT

Topic: System of Equations/Inequalities - Review Day #2

Essential Question:
Why do we need different methods (graphing, substitution, elimination) to solve a system of equations, and how do you choose the most efficient method for a given system?
What does the overlapping shaded region in a system of inequalities represent, and how can a test point be used to verify that the solution set is correct?
In what ways are the methods for solving systems of equations similar to the methods for solving systems of inequalities, and where do they differ significantly?

Warm-up: Which one doesn't belong?
5 minute timer on the digital clock. Students will analyze the given systems of inequalities on the paper and identify which of the four graphs do not belong. This exercise gives the student an opportunity to use their voice and establish an opinion based on the skills they have previously learned.

A)	B)	C)	D)
			

Why did you choose this selection?

Learning Target:
I can accurately solve a system of two linear equations using graphing, substitution, or elimination
I can graph and identify the solution region for a system of two linear inequalities, then interpret the meaning of these solutions in a contextual problem.

Vocabulary: context view, distinct, elimination method, equation rule view, graph view, non-distinct, point of intersection, solution to a system of equations, substitution method, system of equations, table view, boundary line, dashed line, linear inequality, shading, solid line, solution set, testing a solution

Materials: Smartboard, TI-84 Plus calculator, pen/pencil, notebook, anchor charts

Key Points:

- The slope-intercept form of a linear equation is y = mx + b, where *m* is the slope and *b* is the y-intercept.
- The solution to the system of equations is the point (x, y) where the graphs intersect.
- Graphing both equations on the same coordinate plane helps visualize the solution.

NYS Standards: A.CED.A.3, A.REI.D.12

AI-A.REI.6a - Solve systems of linear equations in two variables both algebraically and graphically. Note: Algebraic methods include both elimination and substitution.

A.REI.3 - Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. e.g., Represent inequalities describing nutritional and cost constraints on combinations of different foods.

A.REI.D.12 - Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes. Graphing linear equations is a fluency recommendation. Students become fluent in solving characteristic problems involving the analytic geometry of lines, such as writing down the equation of a line given a point and a slope. Such fluency can support them in solving less routine mathematical problems involving linearity; as well as modeling linear phenomena (including modeling using systems of linear inequalities in two variables).

Objective: For students to comfortably and independently solve a system of equations/inequalities activity.

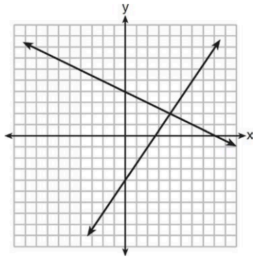
Task: Printed stations will be scattered around the room. The recording worksheet will be distributed to each student, then the students will be placed in groups of 2. Each group will be assigned a starting station. Students solve the given problem on their worksheet. Once the solution is found, they will match their answer and proceed to the next problem. They will continue until they have looped through all 8 stations.

Goal: The goal of this activity is to exemplify the students' knowledge of solving a system of equations/inequalities correctly, work collaboratively with a peer, and foster independence.

Example station:

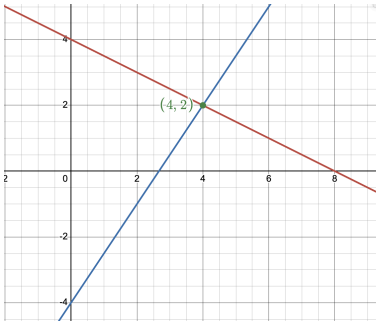
Previous Answer:
$2l + 1.50w \geq 500$
$l + w \leq 360$

A system of equations is graphed on the set of axes below.



The solution to the system is?

Example Response:



Wrap up: On the bottom of your sheet on a scale of 1 - 5 do you feel prepared for the test and what do you think can be done to better prepare for the exam.

IEP Cheat Sheet

Period: 4 Class /Subject: Algebra 1 Teacher Name(s): Leonardo/Kui

IEP Management Needs	Student Name
Extended Time (tests / assignments)	
Test Read Aloud	
Graphic Organizer (Outlines, Checklists, Rubrics, etc.)	
Breaks	
Refocusing / Redirection Prompts	
Visual Aids (videos, images, samples, etc.)	
Modeling / Examples (Think-aloud/read-aloud, rephrasing)	
Teacher check-ins (one-on-one)	
Positive Reinforcement / Praise / Feedback	
Repetition (task, directions/instructions, etc.)	
Preferential Seating	
Separate Location (no more than 15 students)	
Note(s):	