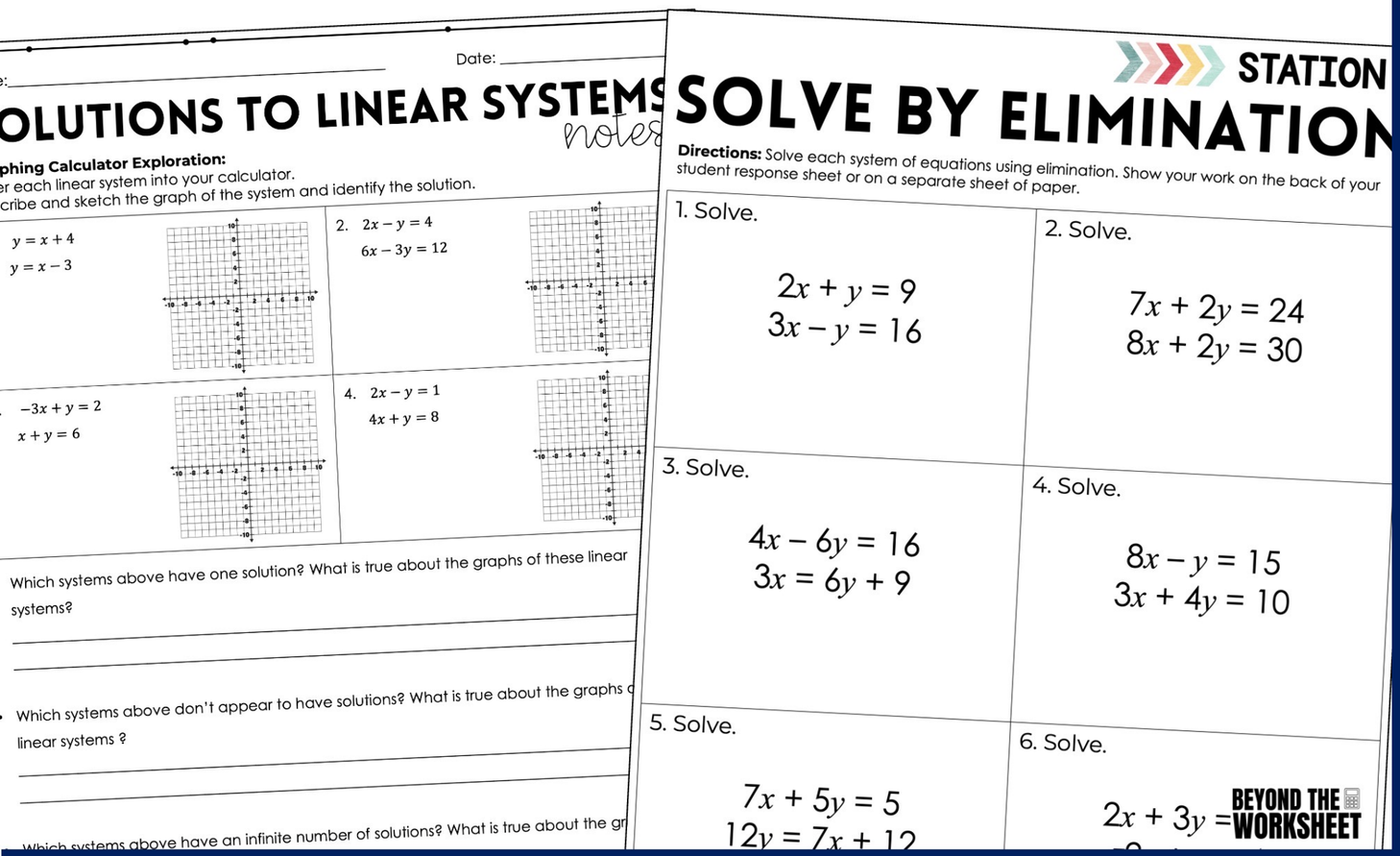
ALGEBRA 1 CURRICULUM – UNIT 6

# SYSTEMS

## OF EQUATIONS & INEQUALITIES




This unit takes students from solving systems graphically through solving algebraically with substitution and elimination, determining the number of solutions to a system, and graphing systems of linear inequalities. Students work with equations in multiple forms, solve real-world applications, explain their reasoning, and build connections between graphical and algebraic representations.

learn more!

GUIDED NOTES, PRACTICE, ACTIVITIES, ASSESSMENTS AND MORE!

# WARM-UPS & EXIT TICKETS

- Structured and spiraled daily warm-up exercises and exercises keep students engaged and focused.

Name:
Date:

exit ticket

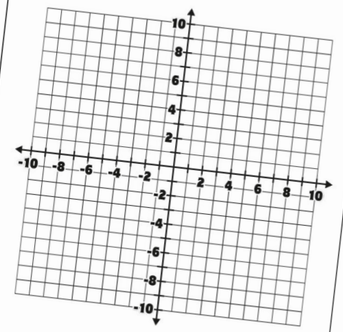
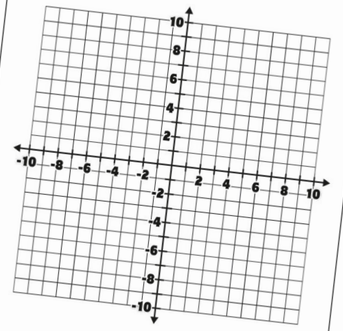
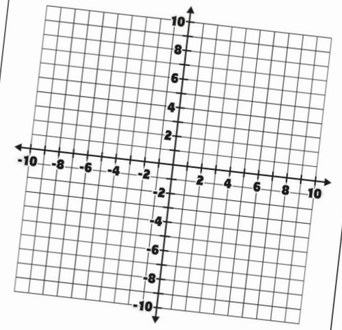
## Lesson 1: Solve Systems by Graphing

Skill: Solving Linear Systems by Graphing

1. $y = \frac{2}{5}x - 4$
   $y = 2x + 4$

2. $y = 7x - 8$
   $y = -x - 8$

3. $-4x + 6 = 6y$
   $12 + 3y = -7x$

©2019/2026 Beyond the Worksheet Inc. All Rights Reserved.



Name:
Date:

warm up

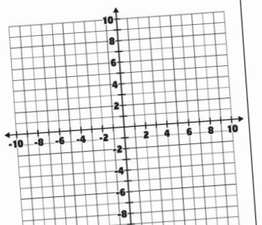
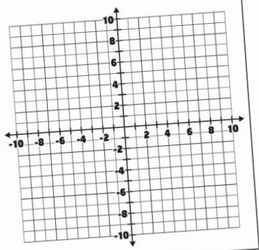
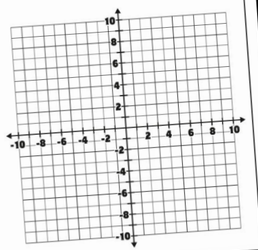
## Lesson 4: Systems of Linear Inequalities

Skill: Solving Linear Systems

1. Solve using any method.
   $4x - 4y = 4$
   $y = 5x - 17$

2. Solve using any method.
   $-12x + 12y = -24$
   $6x - 6y = 12$

3. Solve using any method.
   $y = \frac{1}{3}x + 8$
   $y = 2x + 3$



ame:
te:

exit ticket

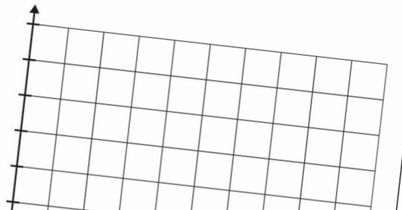
## Lesson 1: Solve Systems by Graphing

Skill: Linear Systems Applications

na is purchasing custom cookie boxes for her
ness. One company charges her a $43 design
lus $9.65 per box. Another company charges
design fee and $8.40 per box.

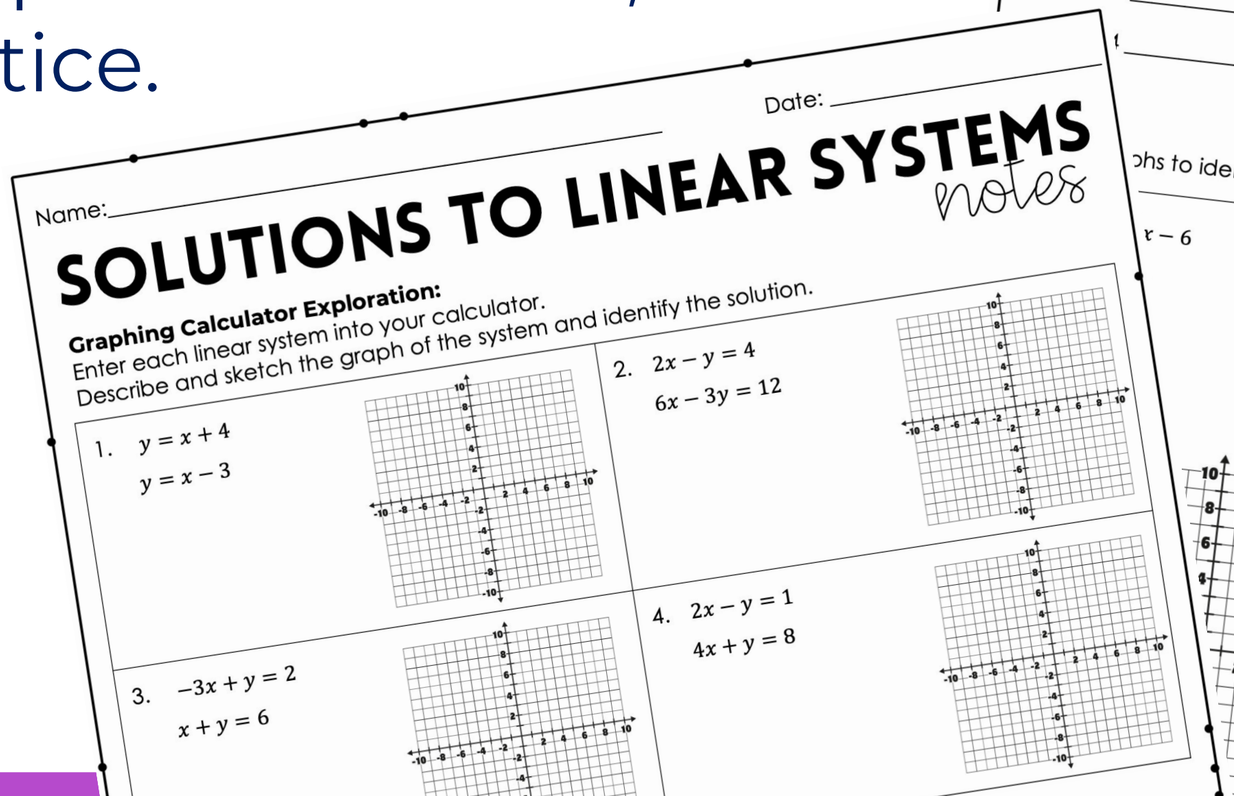
e a linear system for this situation.

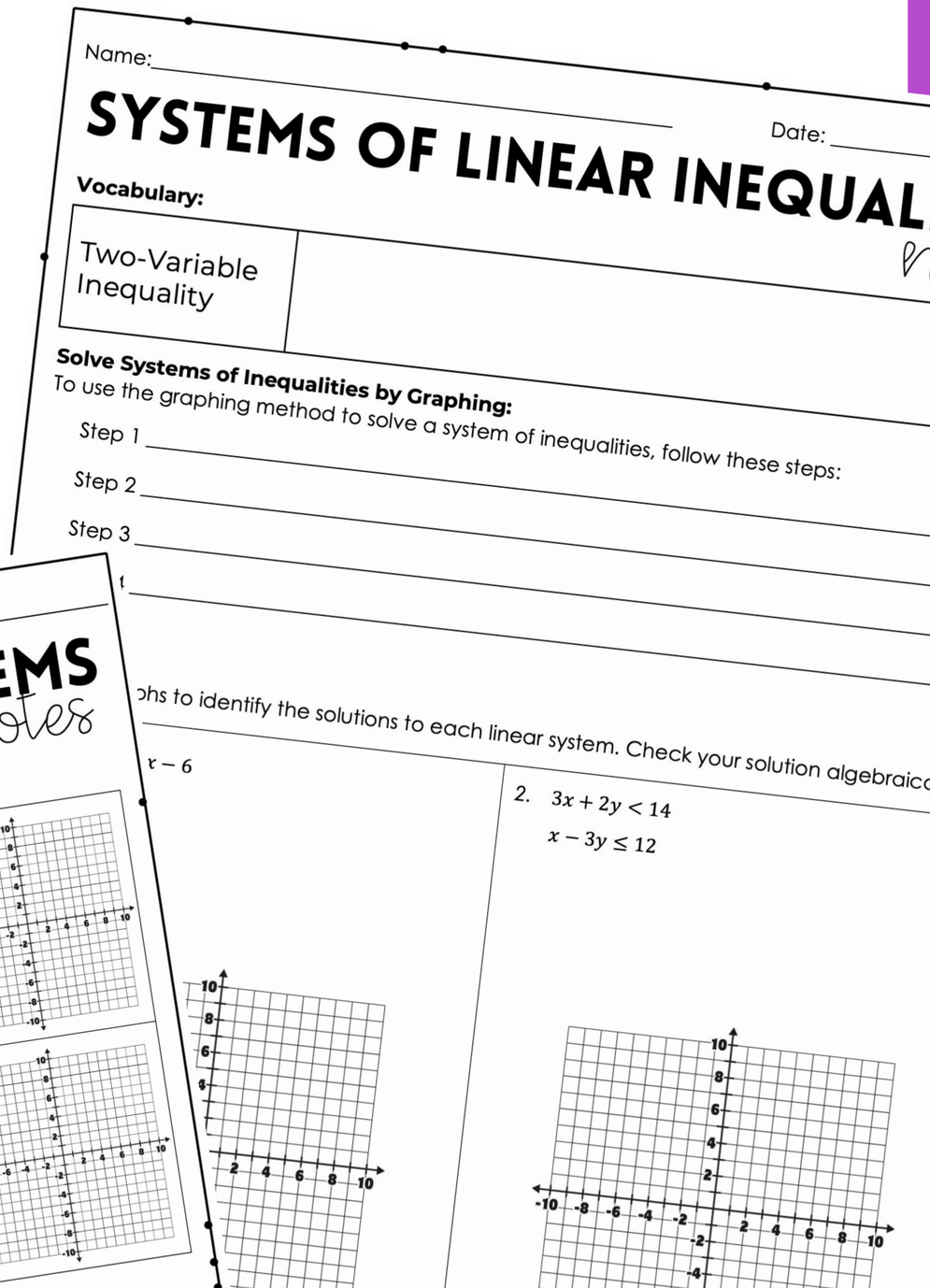
many boxes would she have to purchase
ve the cost be the same at both
anies?



# STUDENT FRIENDLY NOTES

- This unit covers solving linear systems three ways and graphing systems of inequalities.
- The notes give students a place to learn the steps for each skill, with guided practice.


Name:
Date:
SOLUTIONS TO LINEAR SYSTEMS notes
Graphing Calculator Exploration:
Enter each linear system into your calculator.
Describe and sketch the graph of the system and identify the solution.
1. $y = x + 4$
$y = x - 3$
2. $2x - y = 4$
$6x - 3y = 12$
3. $-3x + y = 2$
$x + y = 6$
4. $2x - y = 1$
$4x + y = 8$


Name:
Date:
SYSTEMS OF LINEAR INEQUAL
Vocabulary:
Two-Variable Inequality
Solve Systems of Inequalities by Graphing:
To use the graphing method to solve a system of inequalities, follow these steps:
Step 1
Step 2
Step 3
ohs to identify the solutions to each linear system. Check your solution algebraic
$x - 6$
2. $3x + 2y < 14$
$x - 3y \leq 12$

# PRACTICE WORKSHEETS

- Each skill includes a worksheet for independent practice and skill reinforcement.

Name: _____ Date: _____

## SOLVING SYSTEMS BY GRAPHING *practice*

**For #1 – 4:** Solve each system by graphing. Show your work and your check.

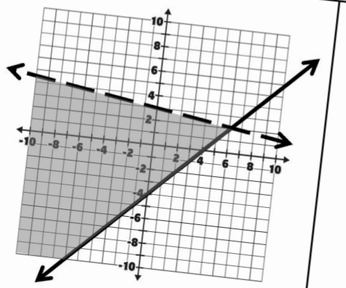
| System | Graph it | Check it |
|---|---|---|
| 1) $y = -15x + 7$<br>$y = -x - 7$ | | |
| 2) $y = x + 8$<br>$y = 18x - 9$ | | |
| 3) $y = 2x - 8$ | | |

## SYSTEMS OF LINEAR INEQUALITIES

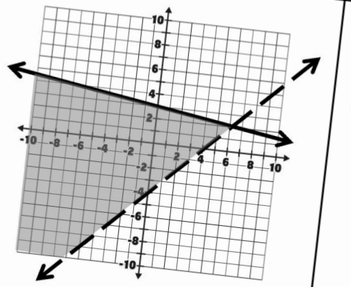
5) Which graph represents the system?

$$y > x - 4$$
$$y \leq -\frac{1}{8}x + 3$$

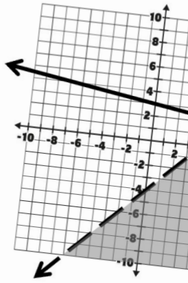
a)



b)

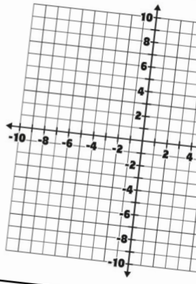


c)



student graphed the system below. They drew both boundary
es dashed and shaded above both lines. Identify two mistakes
d graph properly.

$$y \geq 2x - 1$$
$$y < -x + 4$$



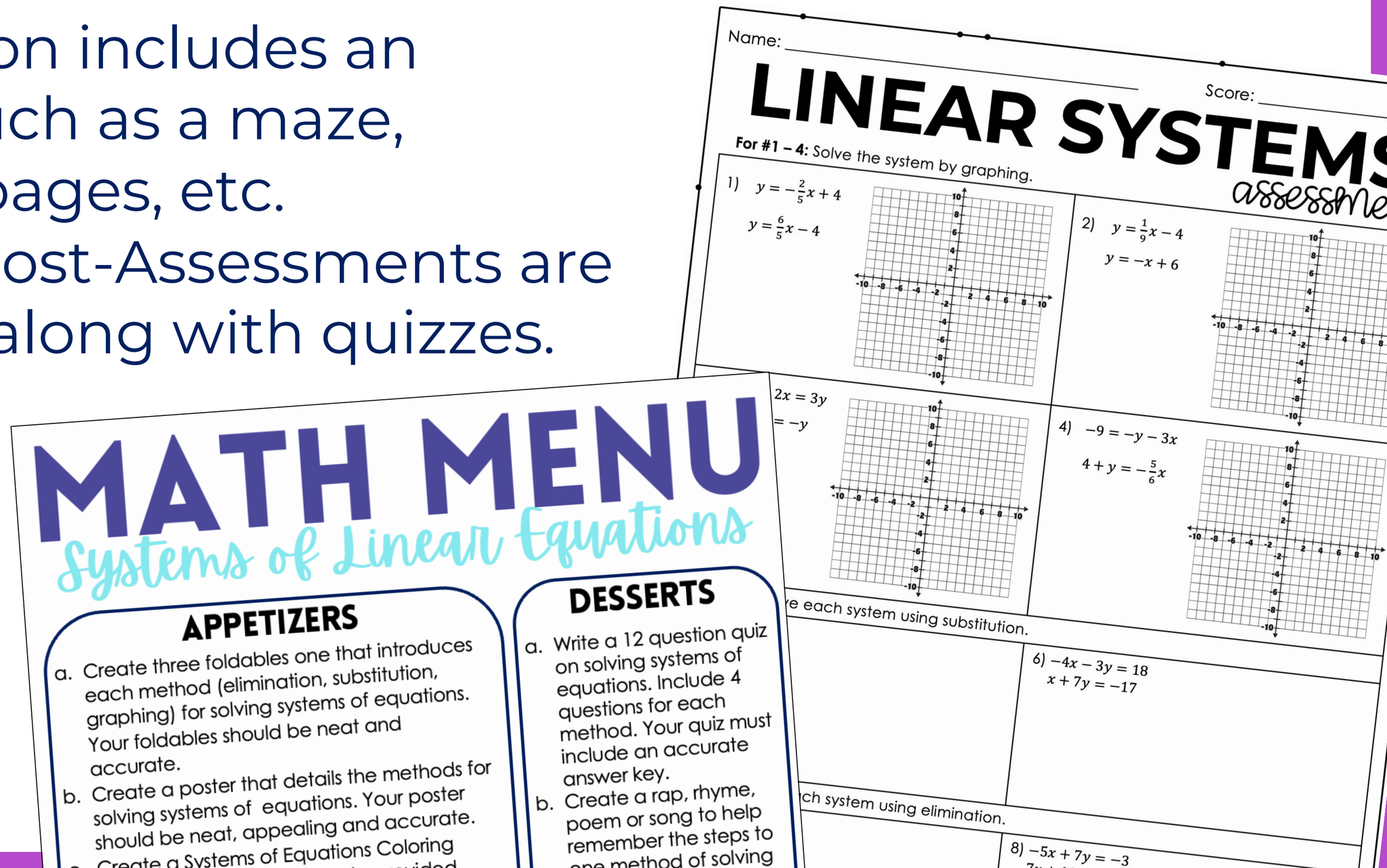
t graphing, identify which ordered
solution to the system.

$$y \leq x + 2$$
$$y > -2x - 1$$

8) A student says: "Any point in either sha
region is a solution to a system of
inequalities." Is the student correct? Exp

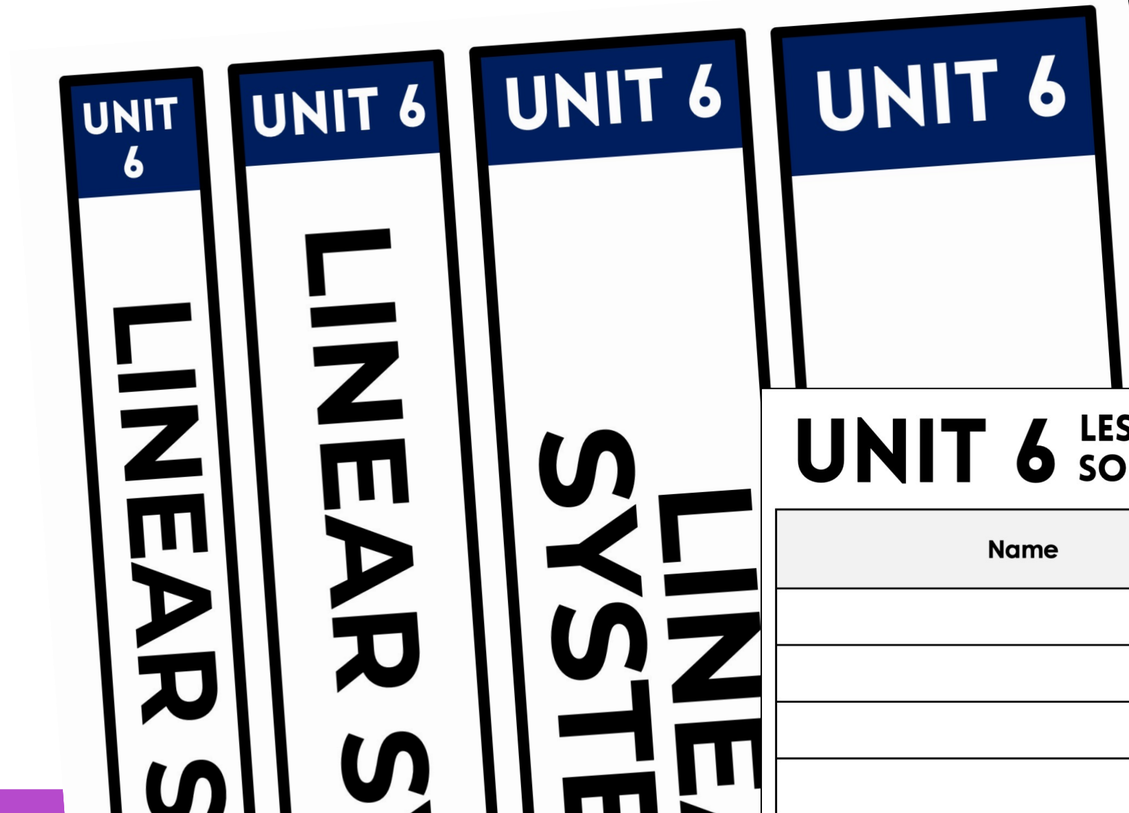
# ACTIVITIES AND ASSESSMENTS

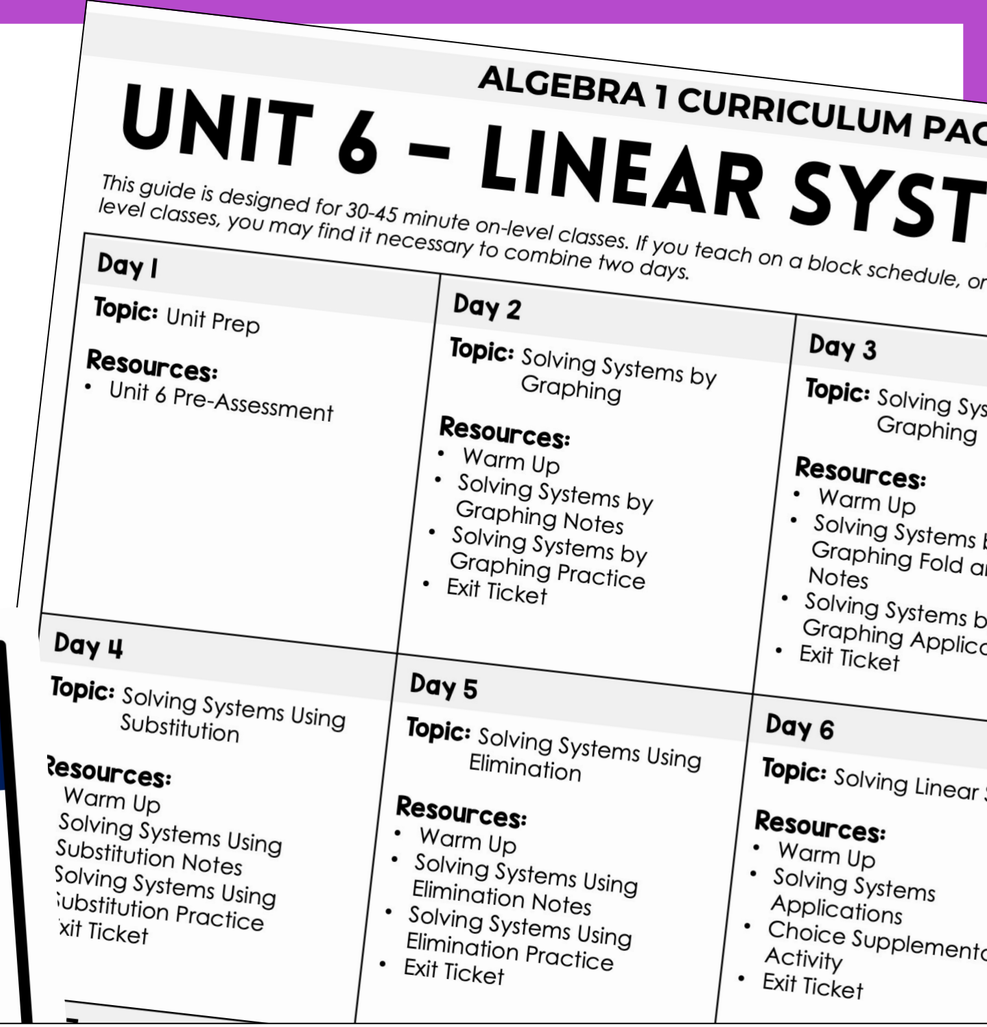
- Each lesson includes an activity such as a maze, coloring pages, etc.
- Pre and Post-Assessments are included along with quizzes.



# TEACHER RESOURCES

- Pacing guide
- Tracking pages
- Lesson info sheets
- Binder covers and spine labels





ALGEBRA 1 CURRICULUM PAC

UNIT 6 – LINEAR SYST

*This guide is designed for 30-45 minute on-level classes. If you teach on a block schedule, or level classes, you may find it necessary to combine two days.*

**Day 1**

**Topic:** Unit Prep

**Resources:**
- Unit 6 Pre-Assessment

**Day 2**

**Topic:** Solving Systems by Graphing

**Resources:**
- Warm Up
- Solving Systems by Graphing Notes
- Solving Systems by Graphing Practice
- Exit Ticket

**Day 3**

**Topic:** Solving Sys Graphing

**Resources:**
- Warm Up
- Solving Systems Graphing Fold a Notes
- Solving Systems b Graphing Applica
- Exit Ticket

**Day 4**

**Topic:** Solving Systems Using Substitution

**Resources:**
- Warm Up
- Solving Systems Using Substitution Notes
- Solving Systems Using Substitution Practice
- Exit Ticket

**Day 5**

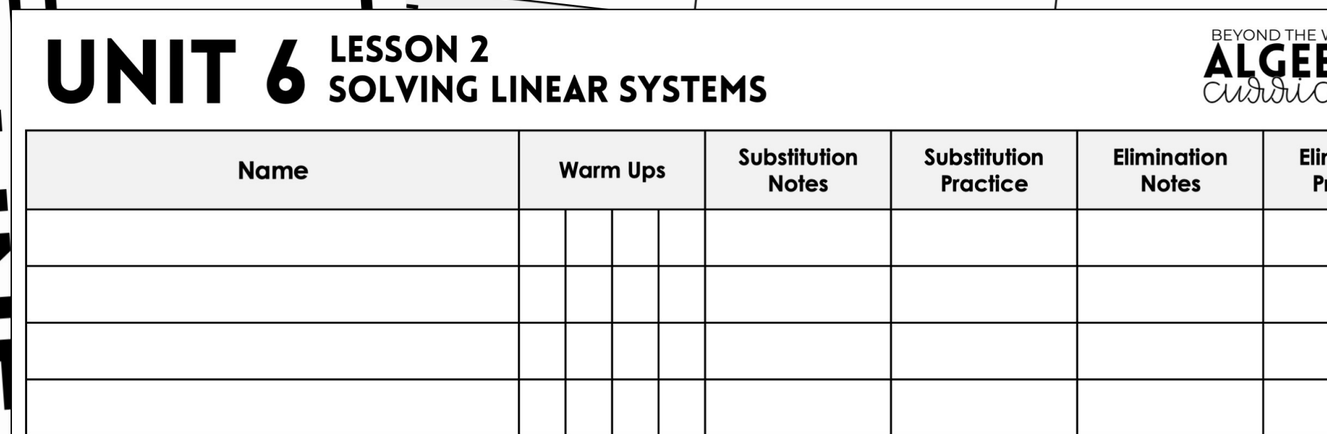
**Topic:** Solving Systems Using Elimination

**Resources:**
- Warm Up
- Solving Systems Using Elimination Notes
- Solving Systems Using Elimination Practice
- Exit Ticket

**Day 6**

**Topic:** Solving Linear

**Resources:**
- Warm Up
- Solving Systems Applications
- Choice Supplementa Activity
- Exit Ticket


**UNIT 6** LESSON 2
SOLVING LINEAR SYSTEMS

BEYOND THE V
ALGEB

| Name | Warm Ups | | | | Substitution Notes | Substitution Practice | Elimination Notes | Elim Pr |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

# EVERYTHING INCLUDED:

- Lessons are designed for 30-45 minute on-level classes and may need to be adjusted for longer classes or varied levels.
- Also includes an answer key and editable version.

# UNIT 6

ALGEBRA 1 curriculum
BEYOND THE WORKSHEET

| Linear Systems | |
|---|---|
| **Lesson** | **Resources** |
| Unit Prep (pgs. 3 – 9) | • Weekly Warm Up Sheet<br>• Exit Tickets<br>• Lesson Plan Template<br>• Vocabulary Sheets<br>• Pre-Assessment |
| (1) Solving Systems by Graphing (pgs. 10 – 20) | • 2 Warm-Ups<br>• Solving Systems by Graphing Notes<br>• Graphing Calculator Tips Half Sheet<br>• Solving Systems by Graphing Fold and Flip Notes<br>• Solving Systems by Graphing Practice Worksheet<br>• Solving Systems by Graphing Applications<br>• 2 Exit Tickets |
| (2) Solving Linear Systems (pgs. 21 – 37) | • 4 Warm-Ups<br>• Solving Systems Using Substitution Notes<br>• Solving Systems Using Substitution Practice Worksheet<br>• Solving Systems Using Elimination Notes<br>• Solving Systems Using Elimination Practice Worksheet<br>• Solving Systems Applications<br>• Solving Systems Fold and Flip Notes<br>• Solving Linear Systems Quiz<br>• 4 Exit Tickets |
| (3) Solutions to Linear Systems (pgs. 38 – 48) | • 2 Warm-Ups<br>• Solutions to Linear Systems Notes<br>• Solutions to Linear Systems Fold and Flip Notes<br>• Solutions to Linear Systems Practice Worksheet<br>• 2 Exit Tickets |
| (4) Systems of Inequalities (pgs. 49 – 56) | • 2 Warm-Ups<br>• Systems of Inequalities Notes<br>• Systems of Inequalities Practice Worksheet<br>• Systems of Inequalities Applications<br>• Systems of Inequalities Quiz<br>• 2 Exit Tickets |
| (5) Matrices {optional} (pgs. 57 – 61) | • 1 Warm Up<br>• Solving Systems Using Matrices Notes<br>• Solving Systems Using Matrices Practice Worksheet<br>• 1 Exit Ticket |
| End of Unit (pgs. 62 – 66) | • Study Guide<br>• Unit Exam |

©2019/2026 Beyond the Worksheet Inc. All Rights Reserved.

# Have questions?

Lindsay@beyondtheworksheet.com

www.beyondtheworksheet.com

www.facebook.com/BeyondTheWorksheet

www.instagram.com/beyond_the_worksheet

www.pinterest.com/BeyondTheWorksheet

www.youtube.com/@BeyondtheWorksheet

