

# Mathematics STAAR® Workstations Volume 4 Algebra I



Region 4 Education Service Center supports student achievement by providing educational products and services that focus on excellence in service for children.

Published by  
Region 4 Education Service Center  
7145 West Tidwell Road  
Houston, Texas 77092-2096  
[www.esc4.net](http://www.esc4.net)

© 2023 by Region 4 Education Service Center. All rights reserved. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

First edition 2023

ISBN-13: 978-1-950577-46-0

Printed in the United States of America

## Digital Access

Digital files are available by accessing the Region 4 Hub at <http://r4hub.esc4.net>.

Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without prior written permission of the publisher.

Copyright law prohibits the copying or sharing of these materials for any purpose outside of direct classroom instruction by the one teacher who owns the purchased copy of this digital book.

**Record your Region 4 Hub access information for future reference.**

Username:

Password Hint:

For instructions regarding online access, contact [shipping@esc4.net](mailto:shipping@esc4.net).

**Mathematics STAAR®  
Workstations Volume 4,  
Algebra I**

Product ID  
407-2119D

## Acknowledgments

Region 4 Education Service Center would like to acknowledge the talent and expertise of those who contributed to the development of this resource. Their dedication to our core values of excellence in service for children made possible the creation of this resource to assist educators in providing quality, effective instruction for all students.

### *Writing Team*

Sana Brennan  
Christina Lincheck  
Kristen Meeks  
Patti Nicodemo  
Shelley Bolen-Abbott  
Sharon Benson, Ed.D.

### *Design Team*

David Martinez

SAMPLE

## Contents

<b>What Is <i>Mathematics STAAR® Workstations Volume 4</i>?</b>	<b>v–vi</b>
Using Review Activity Folders	v
Creating Review Activity Folders	v
STAAR® Redesign Technology Enhanced Item	vi
Answer Keys	vi
Debriefing and Providing Feedback	vi
<b><i>Mathematics STAAR® Workstations Volume 4</i> Features</b>	<b>vii–ix</b>
<b>Reporting Category 1: Number and Algebraic Methods</b>	
Factoring Trinomials (A)(10)(E)	1–14
Workstation Document	Digital Download
<b>Reporting Category 2: Describing and Graphing Linear Functions, Equations, and Inequalities</b>	
Solution Sets of Linear Inequalities in Two Variables A(3)(D)	15–25
Workstation Document	Digital Download
<b>Reporting Category 3: Writing and Solving Linear Functions, Equations, and Inequalities</b>	
Solving Linear Equations A(5)(A)	26–36
Workstation Document	Digital Download
Solving Systems of Linear Equations A(5)(C)	37–49
Workstation Document	Digital Download
Writing Linear Equations from a Graph A(2)(C)	50–62
Workstation Document	Digital Download
<b>Reporting Category 4: Quadratic Functions and Equations</b>	
Solving Quadratic Equations by Factoring A(8)(A)	63–72
Workstation Document	Digital Download
Domain and Range of Functions A(6)(A), A(2)(A)	73–87
Workstation Document	Digital Download
<b>Reporting Category 5: Exponential Functions and Equations</b>	
Key Features of the Graphs of Exponential Functions	
A(9)(D), A(9)(C)	88–98
Workstation Document	Digital Download
<b>Materials</b>	<b>99–100</b>
<b>Printing Guide</b>	<b>101</b>

## What is *Mathematics STAAR® Workstations Volume 4*?

*Mathematics STAAR® Workstations Volume 4* is a student-centered review resource to be used to address the Mathematics TEKS that, based on current data, have proven challenging for students. Each workstation is TEKS-based and may be used to enrich Tier I instruction or as a review of the rigor outlined by the TEKS.

Each review workstation is designed to take 15-20 minutes and fit in a single file folder to create a convenient and engaging review resource. These workstations may be used in a variety of structures, including differentiated review during class, review sessions, and tutorials.

### Using *Mathematics STAAR® Workstations Folders*

A folder format provides flexible options for review. The following are examples of ways to use the folders:

- Individualized Review: Students complete workstations that target their area(s) of greatest need based on formative assessment data.
- Review Stations: Student groups work through each folder and note any topics they find confusing or for which they need further review. The teacher monitors student discussions to assess for misconceptions. These points for review can be addressed individually or as a class to make the best use of class time.
- Whole Class Review: During one class period, the class works in small groups through the same review workstation folder(s) and debriefs together.

Students may benefit from the use of cooperative grouping strategies, such as CHAMPS, while completing the workstations. Think-Pair-Share can be used to ensure that all students are provided opportunities to share their mathematical thinking. Displaying a timer will assist students in monitoring their time while completing each workstation. The recording sheet, blank paper, or sticky notes can be used to hold students accountable for their learning during all tasks of the workstation.

### Creating *Mathematics STAAR® Workstations Folders*

To create the review workstations in this resource, you will need the following materials:

- Access to a copy machine and/or printer
- File folders, preferably a different color for each Reporting Category
- Cardstock
- Hook-and-loop dots
- Packing tape
- Glue sticks
- Resealable plastic sandwich bags
- Transparencies
- Dry-erase markers
- Counters
- Whiteboards

Follow these steps to create each *Mathematics STAAR® Workstations* folder:

1. Read through the Teacher Notes and gather the materials for the workstation.
2. Print the Labels, Instructions, Task Cards, and Student Answer Keys. You may access the digital files and choose to print in color or black and white. Access digital files at <http://r4hub.esc4.net> using your login information.
3. Cut out the Labels, Instructions, Task Cards, and Student Answer Keys, and attach each to the folder. You may choose to follow the sample layout provided in the Teacher Notes or organize the folder in a way that meets the needs of your students.
4. Print copies of the student pages. These are designed to be consumables for students to use as a study guide.

## What is *Mathematics STAAR® Workstations Volume 4*?

### **STAAR® Redesign Technology Enhanced Item**

Each workstation includes at least one STAAR®-type assessment item. When appropriate, the item is written to mirror STAAR® Redesign Technology Enhanced Item (TEI) types.

### **Answer Keys**

Answer keys are included with each workstation. The answer keys may be used in one of the following ways:

- Place the answer key on the back cover of the folder under a flap for students to self-check as they complete the workstation.
- Place the answer key inside the folder in a pocket or under a flap for students to self-check as they complete the workstation.
- Plan for students to visit a solution station with a labeled answer key for each workstation.

### **Debriefing and Providing Feedback**

Depending on how the folders are used, the teacher may choose a variety of strategies to provide feedback:

- Use Content Objective, Language Objective, and practice assessment items to debrief the workstation. Students who are unable to accurately answer these questions following the completion of the workstation's activity may need additional support.
- Students complete each workstation and use the answer key or visit the solution station to check their answers. Students should note any questions about a concept or skill so that their questions can be addressed by their teacher.
- Other tools, such as sticky notes, may be used to collect student responses to a specific part of the task, responses from student discourse, or assessment responses, for ease of sorting and making future instructional decisions.

### **References**

Kelemanik, Grace, Amy Lucenta, and Susan Janssen Creighton. 2016. *Routines for Reasoning: Fostering the Mathematical Practices in All Students*. Portsmouth, NH: Heinemann.

Zwiers, Jeff, Jack Dieckmann, Sara Rutherford-Quach, Vinci Daro, Renae Skarin, R., Steven Weiss and James Malamut. 201. *Principles for the Design of Mathematics Curricula: Promoting Language and Content Development*. Retrieved from Stanford University, UL/SCALE website: <http://ell.stanford.edu/content/mathematics-resources-additional-resources>.

## Mathematics STAAR® Workstations Volume 4 Features

**Materials** listed aid in activity preparation.

**Writing Linear Equations from a Graph**

TEKS A(2)(C)  
Reporting Category 3  
Writing and Solving Linear Functions, Equations, and Inequalities

Each activity addresses a specific student expectation that is reflected in the content objective(s).

**Materials For the folder**

- Workstation document
- Green folder
- Green cardstock for answer key cover
- Additional green cardstock
- Hook-and-loop dot
- Packing tape
- Plastic sandwich bag
- Whiteboard
- Dry-erase markers

A different color folder is used for each reporting category to aid in organization. Manila folders may also be used.

1. Print the workstation document.
2. Cut out, arrange, and glue the *Cover* to the front of the folder.
3. Cut out and glue the *Folder Tab Label* to the tab of the folder.

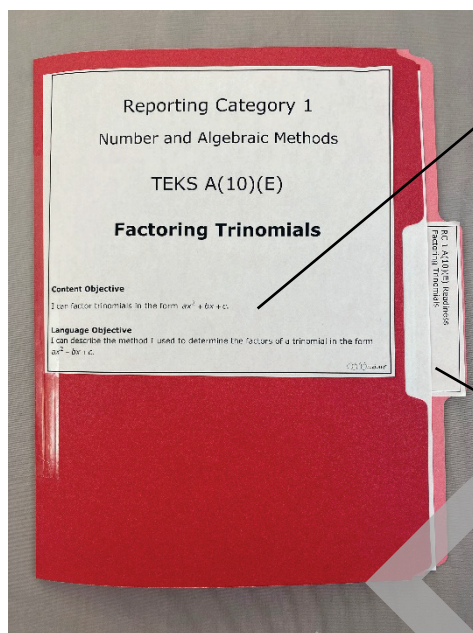
The titles of **Activity Masters** and **Student Pages** are printed in italics for ease of reference.

### Reporting Category Folder Color Recommendations

- Reporting Category 1: Red Folders
- Reporting Category 2: Yellow Folders
- Reporting Category 3: Green Folders
- Reporting Category 4: Blue Folders
- Reporting Category 5: Purple Folders

## Mathematics STAAR® Workstations Volume 4 Features

### Front Cover

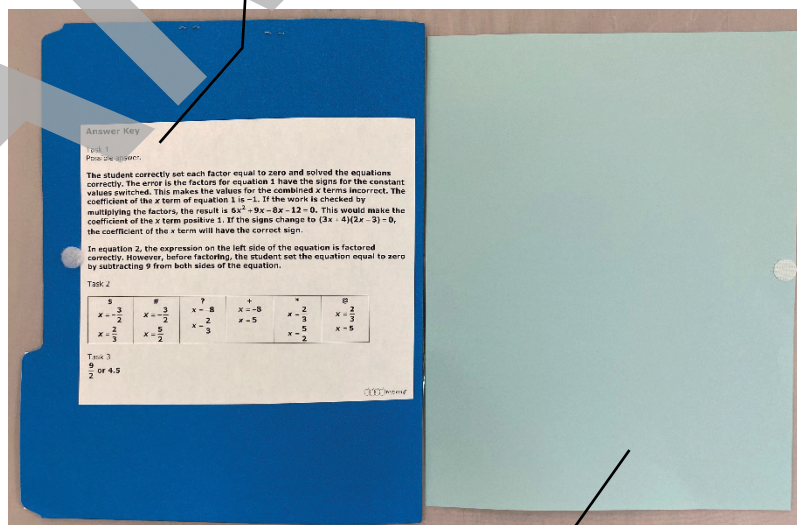


**Content Objective** and **Language Objective** describe the focus of the TEKS-based activity in student-friendly language.

**Folder Tab Labels** are provided to aid in organization of folders.

### Back Cover

The **Answer Key** allows students to self-check their answers to each task.



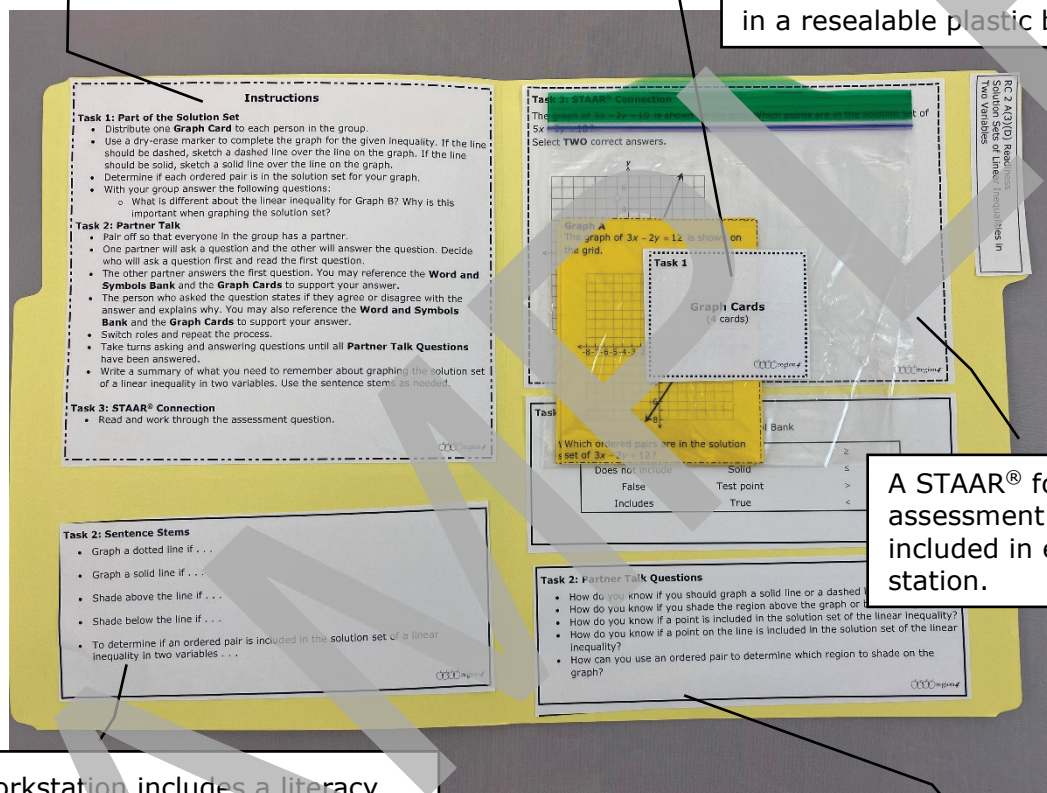
**Cardstock Cover** keeps an answer key secure until students are ready to check their work.

## Mathematics STAAR® Workstations Volume 4 Features

### Inside Folder

Each workstation includes step-by-step instructions to aid students in completing each task.

Some workstations include card sorts or have other manipulatives. Cards are stored in the folder either in a pocket (created using cardstock or an envelope) or in a resealable plastic bag.



A STAAR® formatted assessment item is included in each station.

Each workstation includes a literacy component to promote understanding and academic vocabulary.

Varied border designs are used to distinguish tasks.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Factoring Trinomials Recording Sheet**

**Task 1: Factoring Trinomials**  
I choose to use Method \_\_\_\_\_ to determine the factors for the trinomial.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Task 2: Factoring Trinomials Puzzle**

	c

**Task 3: STAAR® Connection**  
Select **TWO** correct answers.  
☐  $x-7$   
☐  $3x-2$   
☐  $x-2$   
☐  $3x+2$   
☐  $x-7$   
☐  $3x-7$   
 I determined the answer to the question by . . .

02323 Region 4 Education Service Center

Each workstation includes a reproducible master that provides students with a study guide.