

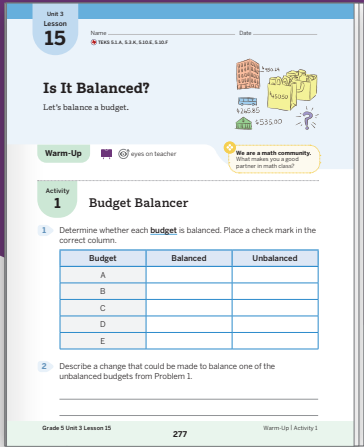


Student Edition pages and  
Presentation Screens support  
learning in this lesson.

# Is It Balanced?

## Making and Balancing a Budget

Let's calculate expenses.



### Key Concepts

#### Today's Goals

- Goal:** Add and subtract whole numbers and decimals to balance a budget.
- Language Goal:** Describe actions that might be taken to balance a budget when expenses exceed income. **(Listening and Speaking)** 🇺🇸 ELPS 1.B, 2.B, 2.E

### Connections and Coherence

Students are introduced to the concept of a **balanced budget** and apply their understanding of addition and subtraction of whole numbers and decimals to determine whether expenses exceed income. They describe actions that might be taken to balance a budget when expenses exceed income. **(TEKS 5.1.A)**

#### ◀ Prior Learning

In Lesson 14, students used their knowledge of different tax types to calculate net income from gross income.

#### ▶ Future Learning

In Lesson 17, students will use financial records to track withdrawals and deposits.

### Integrating Rigor in Student Thinking

- Students build their **conceptual understanding** of a balanced budget.
- Students strengthen their **fluency** with adding and subtracting whole numbers and decimals.

### Vocabulary

#### New Vocabulary

balanced budget

budget

#### Review Vocabulary

*expenses*

*gross income*

*net income*

### 🇺🇸 TEKS

#### Addressing

##### 5.10.E

**Describe actions that might be taken to balance a budget when expenses exceed income.**

*Also Addressing:* **5.3.K, 5.10.F**

**Math Process Standards:** 5.1.A

**ELPS:** 1.B, 1.E, 2.B, 2.C, 2.D, 2.E, 3.C, 3.F

#### Building On

**4.4.A**

#### Building Toward

**6.14.C**

### Building Math Identity

#### 🌟 We are a math community.

What makes you a good partner in math class?

Invite students to reflect on this question as they complete this lesson.

# Lesson at a Glance ⌚ 60 min

🇺🇸 TEKS: 5.1.A, 5.3.K, 5.10.E, 5.10.F

## Warm-Up

👥 Whole Class | ⌚ 10 min

Students use the **Notice and Wonder** routine to share what they notice and wonder about a budget where expenses are equal to net income. The terms **budget** and **balanced budget** are introduced in the Connect.

What do you notice? What do you wonder?

Net Income: \$360

Expense	Amount
clothing	\$100
entertainment	\$30
food	\$200
savings	\$30



## Activity 1

👥 Pairs | ⌚ 15 min

Students explore budget scenarios and identify balanced budgets. They use the **Think-Pair-Share** routine to discuss their strategies for determining whether a budget is balanced. Students then balance a simple budget by calculating the total cost of expenses and the amount of net income remaining.

**Materials:** Activity 1 PDF, chart paper

Activity 1 PDF: "Is It Balanced?"

Let's balance a budget.

**Budget Balancer**

1. Determine whether each budget is balanced. Place a check mark in the correct column.

Budget	Balanced	Unbalanced
A.		
B.		
C.		
D.		
E.		

2. Describe a change that could be made to balance one of the unbalanced budgets from Problem 1.



## Activity 2

👥 Pairs | ⌚ 20 min

Students use the **Think-Pair-Share** routine to discuss actions to balance a budget when expenses exceed income. They analyze a budget and take action to balance the budget if needed.

Activity 2 PDF: "Cutting Costs"

1. Mary's grandmother has a weekly net income of \$500. Determine whether the table shows a balanced budget. If not, cross off the expenses she should eliminate.

Expense	Cost
groceries	\$120.75
utilities	\$50.00
household	\$50.00
savings	\$100.00
clothing	\$40.00

2. Show your thinking.



## Synthesis

👥 Whole Class | ⌚ 10 min

Students review and reflect on the purpose of a balanced budget and the actions they can take to eliminate expenses.

Lesson Synthesis



## Show What You Know

👤 Independent | ⌚ 5 min

Students demonstrate their understanding of a balanced budget by describing actions they should take when expenses exceed income.

**Materials:** Show What You Know PDF

Show What You Know PDF

Which changes can be made to balance the budget for the month?

Net Income: \$400

Expense	Amount
clothing	\$100
entertainment	\$150
food	\$80
savings	\$40

A. Increase the budgeted amount for savings by \$20.  
B. Decrease the budgeted amount for entertainment by \$20.  
C. Increase the budgeted amount for food by \$20.  
D. Decrease the budgeted amount for clothing by \$20.  
E. Decrease the budget amount for clothing by \$10.



## Math Language Development

### EB Emergent Bilinguals

Consider using the *Math Language Development Resources* with the **Activity 2, Monitor** to support math language acquisition.

- ✓ Cognates
- ✓ Frayer Model
- ✓ Sentence frames and word bank

🇺🇸 ELPS 1.B, 1.E, 2.C, 2.D, 2.E, 2.F



### Pre-Production

Students **listen** to spoken English and **respond** using their primary languages and gestures.

### Beginning

Students **listen** to spoken English and **speak** using their primary languages, gestures, and single words or short phrases.

### Intermediate

Students **listen** to spoken English and **speak** using short phrases or simple sentences.

### High Intermediate

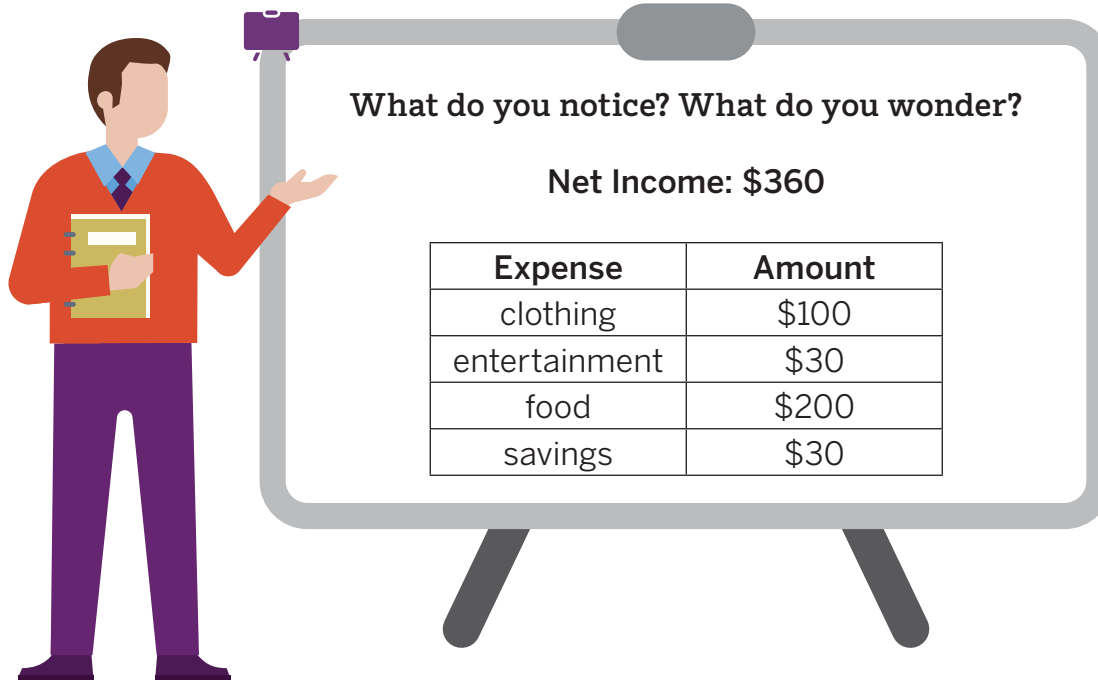
Students **listen** to spoken English and **speak** using a variety of sentence types.

### Advanced

Students **listen** to spoken English and **speak** using longer sentences. Exemplar responses are provided.

# Warm-Up Notice and Wonder

**Purpose:** Students examine an image to introduce the concept of a budget.



What do you notice? What do you wonder?

Net Income: \$360

Expense	Amount
clothing	\$100
entertainment	\$30
food	\$200
savings	\$30

## 1 Launch

 **Display** the image.

Use the **Notice and Wonder** routine.

Use the **Think-Pair-Share** routine. Ask, "What do you notice? What do you wonder?"

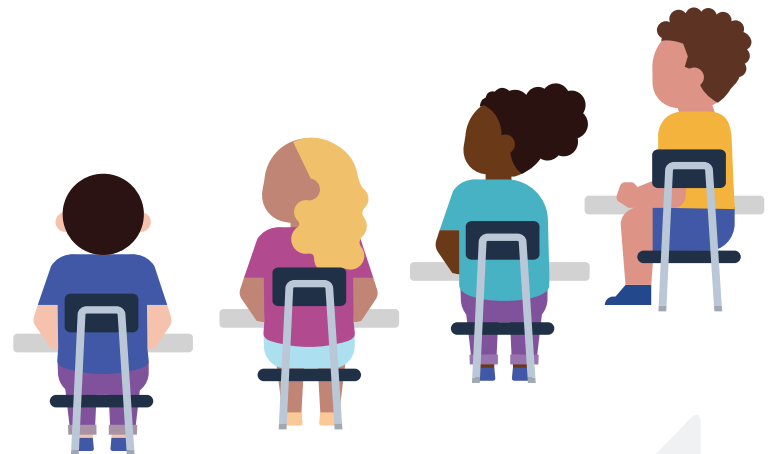
## 2 Connect

**Record** students' responses as they share.

**Ask**, "Why are net income and total expenses equal?"

**Define** **budget** as a plan for spending income on expenses.

**Say**, "If the net income is equal to the total of the expenses, it is called a **balanced budget**."



**Students might say . . .**  ELPS 2.B

I notice that this is a budget with net income split into expenses.

I notice that the net income and total spending are the same.

I wonder how they decided on these amounts.

I wonder why the cost of the expenses adds to \$360.

# Activity 1 Budget Balancer

**Purpose:** Students add and subtract with whole numbers and decimals to determine whether expenses exceed income in a budget.

## Materials

### Classroom materials:

### Lesson Resources:

- Display the Activity 1 PDF around the room during the Launch.
- Provide paper at each display for students to use for calculations in Activity 1.

**Short on time?** Consider having students explore only Budgets A and B.

## 1 Launch



**Say,** “You and your partner will move around the room to each budget scenario, thinking about whether each budget is balanced. You will complete Problems 1 and 2 with your partner.”

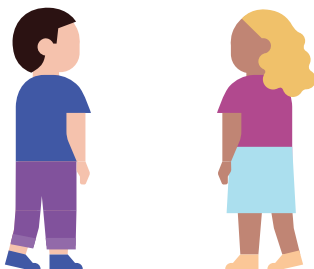
**Have students pause** after completing Problems 1 and 2.

**Use the Think-Pair-Share routine.** Ask, “How did you determine which budgets were balanced?”

**A Accessibility: Memory and attention** Provide students the worked-out total cost of the expenses.

**Have students complete** Problem 3 independently.

## 2 Monitor



After students have completed **Problem 3**, refer to the **Differentiation | Teacher Moves** table on the following page.

**If students need help getting started . . .**

- Ask, “What do you need to calculate first?”
- Ask, “How could you determine the missing amount?”

## 3 Connect



**Invite students to share** their responses from Problem 3.

**Use the Think-Pair-Share routine.** Ask, “How did you determine the amount of money to put in the Other category?”

**MLR MLR8: Discussion Supports — Sentence Frames** **ELPS 1.E, 2.C, 2.E**

While students share their responses, display these sentence frames to support discussion.

- “We determined the amount by . . .”
- “I added . . .”
- “I subtracted . . .”

**Key Takeaway:** Say, “You can add your expenses together and subtract them from the net income to determine whether a budget is balanced. When expenses and income are equal, you have a balanced budget.”

Unit 3  
Lesson  
15

Name \_\_\_\_\_ Date \_\_\_\_\_  
TEKS 5.1.A, 5.3.K, 5.10.E, 5.10.F

Is It Balanced?

Let's calculate expenses.



Warm-Up

eyes on teacher

We are a math community.  
What makes you a good partner in math class?

Activity  
1

Budget Balancer

1 Determine whether each **budget** is balanced. Place a check mark in the correct column.

Budget	Balanced	Unbalanced
A		✓
B		✓
C		✓
D	✓	
E		✓

2 Describe a change that could be made to balance one of the unbalanced budgets from Problem 1. **Sample response shown.**

**Budget B's expenses added to \$1,950. They could take entertainment out of their budget.**

Activity  
1

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

Budget Balancer (continued)

3 The monthly income for Andrea's mom during October was \$2,479.66. The table shows an incomplete budget. Complete the table to show a **balanced budget**.

Expense	Amount
rent	\$950.24
transportation	\$265.85
food	\$450.50
savings	\$535.00
other	<b>\$278.07</b>

Show your thinking.

Sample work shown.

$$\begin{array}{r} 211 \\ 950.24 \\ 265.85 \\ 450.50 \\ + 535.00 \\ \hline 2,201.59 \end{array} \qquad \begin{array}{r} 516 \\ 2,479.66 \\ - 2,201.59 \\ \hline 278.07 \end{array}$$

answer: **\$278.07**

D Differentiation | Teacher Moves



Look for students who ...

For example ...

Provide support ...

Almost there

Identify the missing amount as the total of the expenses listed in the table.

Expense	Amount
rent	\$950.24
transportation	\$265.85
food	\$450.50
savings	\$535.00
other	\$2,201.59

**Support** Ask, "The total of all the expenses will be equal to the income in a balanced budget. How did you determine the amount for this expense?"

Identify the missing amount as the total expenses subtracted from the net income.

Expense	Amount
rent	\$950.24
transportation	\$265.85
food	\$450.50
savings	\$535.00
other	\$278.07

**Stretch** Ask, "If they wanted to spend \$95 on new clothes, how much money would remain in the *other* category?"

# Activity 2 Cutting Costs

**Purpose:** Students describe actions that can be taken to balance a budget.

## 1 Launch



**Use the Think-Pair-Share routine.** Ask, “Which expense categories would you choose to revise? Why?”

**Say:**

- “When a budget is not balanced, actions must be taken to decrease some of the unnecessary expenses.”
- “You will complete Problem 4 with your partner and Problems 5 and 6 independently.”

**EB Emergent Bilinguals** If possible, pair students with different levels of English language proficiency together as they complete this activity. **ELPS 1.E, 2.C, 2.D**

## 2 Monitor



After students have completed **Problem 4**, refer to the **Differentiation | Teacher Moves** table on the following page.

**If students need help getting started . . .**

- Ask, “How could you determine whether the budget is balanced?”
- Ask, “What should you consider before you eliminate or decrease an expense?”

## 3 Connect



**Invite students to share** their responses and strategies from Problem 4. Select and sequence their responses in the order shown in the *Differentiation* table.

**Use the Think-Pair-Share routine.** Ask, “How did you determine which expense to eliminate from the budget? Why?”

**Say** (if not yet mentioned during the discussion), “There are many ways to adjust your spending to balance a budget. It is important to think about the types of expenses you have and whether they are necessary before determining how to balance your budget.”

**Key Takeaway:** Say, “To have a balanced budget, your expenses and your income must be equal, or balanced. When a budget is not balanced, you can choose to eliminate or decrease unnecessary expenses or try to increase income.”

Activity  
2

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

Cutting Costs

- 4 Han's grandmother has a weekly net income of \$500. Determine whether the table shows a balanced budget. If not, cross off the expense she should eliminate.

Expense	Cost
groceries	\$253.74
utilities	\$99.26
<del>movie tickets</del>	<del>\$36.00</del>
savings	\$100.00
clothes	\$47.00

Show your thinking.

Sample work shown.

$$\begin{array}{r} 221.1 \\ 253.74 \\ 99.26 \\ 36.00 \\ 100.00 \\ + 47.00 \\ \hline 536.00 \end{array}$$

answer: \$536.00

Activity  
2

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

Cutting Costs (continued)

Expense	Amount
cell phone	\$60
gym membership	\$40
entertainment	\$65
food	\$80
savings	\$75

- 5 Han's brother earned \$280 this week. He made a list of his expenses. Describe a change he could make to have a balanced budget for the week.

Sample response shown.

Gi's brother is \$40 over his income for the week.

To have a balanced budget, he could spend \$25 on entertainment instead of \$65.

- 6 This month, Gil's expenses are greater than his income. What actions could he take to balance his budget?

- (A) increase expenses and decrease income  
(B) decrease expenses and decrease income  
(C) decrease expenses and increase income  
(D) increase expenses and increase income

D Differentiation | Teacher Moves



Presentation Screens

Look for students who ...

For example ...

Provide support ...

Almost there

Determine that the expenses do not exceed the weekly net income.

The total cost is less than \$500.  
That means that she could actually buy everything in her budget and add more money to her savings.

**S Support** Ask, "How did you determine the amount of money spent on expenses?"

Almost there

Determine that the expenses exceed the weekly net income and eliminate a necessary expense.

The total cost is \$536, which is \$36.00 over her weekly income. She should take some money out of her utility costs.

**S Strengthen** Ask, "How did you determine which expense to eliminate? Which expenses do you see that aren't important?"

Determine that the expenses exceed the weekly net income and eliminate unnecessary expenses.

The total cost is \$536, which is \$36 over her weekly income. She should not buy movie tickets.

**S Stretch** Ask, "How could you balance the budget without eliminating any expenses?"

# Synthesis

**Lesson Takeaway:** Balancing a budget is important because it ensures that spending does not exceed income. Balancing a budget may require reducing expenses.



**Say,** “Today, you balanced a budget by calculating expenses and determining whether they exceeded income.”

**Use the Think-Pair-Share routine.** Ask, “Do you agree with the action taken to balance this budget? Why or why not? What action could be taken instead?”

**Say,** “You can determine expenses to eliminate from your budget based on whether the expense is a want or a need.”

**Formalize vocabulary:** budget, balanced budget

(optional) Consider using the **Word Structure: Compound Words routine** with the term *balanced budget*. Consider asking, “How can you use your understanding of the words *budget* and *balance* to help you understand the term *balanced budget*?”

**ELPS 1.B, 3.C, 3.F**

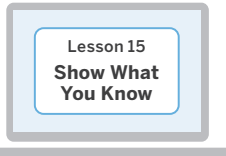
**Refer to the Math Language Development Resources** for a description of this routine and for more vocabulary support.

**Invite** students to refer to the **Summary** during Practice or anytime during the year.

## Show What You Know

Independent | 5 min

Students  
using digital



### Show What You Know PDF

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

**Show What You Know** 3.15

Which changes can be made to balance the budget for the month?  
Select all that apply.  
Income: \$400

Expense	Amount
clothing	\$130
entertainment	\$140
food	\$110
savings	\$40

A. Increase the budgeted amount for savings by \$30.  
B. Decrease the budgeted amount for entertainment by \$20.  
C. Increase the budgeted amount for food by \$20.  
D. Decrease the budgeted amount for clothing by \$10.  
E. Decrease the budget amount for clothing by \$20.

**I can ...**  
Describe actions to balance a budget when expenses exceed income.

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### Today's Goals

- Goal:** Add and subtract whole numbers and decimals to balance a budget.
- Language Goal:** Describe actions that might be taken to balance a budget when expenses exceed income.  
**(Listening and Speaking)** **ELPS 1.B, 2.B, 2.E**
  - In the *Show What You Know*, students determined an action that might be taken to balance a budget.



### Differentiation

See the last page of the lesson for differentiation and Math Language Development support.



# Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics including connections to assessment practice, and ongoing spiral review.

Lesson 15  
Practice

Students using print

### Summary 3.15

When you create a **balanced budget**, you want to make sure your expenses are equal to your income. If your expenses exceed your income, you can identify ways to adjust your budget.

**balanced budget** A plan for spending in which the expenses equal the net income.

### Practice 3.15

1 Priya made \$200 doing chores for the month. How much remaining income does she have for entertainment expenses?

Expense	Amount
clothing	\$40.17
food	\$50.29
savings	\$65.81
entertainment	\$43.73

Grade 5 Unit 3 Lesson 15

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Summary | Practice

Students using digital

### Practice 3.15

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

2 Andrea's expenses and income are shown in the chart.

Andrea's Budget	
Income	Expenses
lawn mowing..... \$20.00	clothes..... \$20.00
babysitting..... \$35.00	food..... \$60.00
tutoring..... \$40.00	entertainment..... \$40.00
garage sale..... \$55.00	

Based on the budget, what is the greatest amount of money Andrea can spend on markers for an art project and still achieve a balanced budget?

(A) \$10 (B) \$20  
(C) \$30 (D) \$40

3 Andrea's sister has a net income of \$1,300. Based on her list of expenses, what change could her sister make to balance her budget?

Expense	Amount
food	\$250
rent	\$800
savings	\$130
clothing	\$150

(A) increase her food costs by \$30 (B) increase her clothing costs by \$70  
(C) decrease her food costs by \$70 (D) decrease her clothing costs by \$30

Grade 5 Unit 3 Lesson 15

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Practice

### Practice 3.15

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

### Spiral Review

For Problems 4–9, determine the product. **Sample work shown.**

Show your thinking.

4  $12 \times 11$

$$\begin{array}{r} 12 \\ \times 11 \\ \hline 12 \\ + 120 \\ \hline 132 \end{array}$$

answer: **132**

5  $20 \times 15$

$$\begin{array}{r} 20 \\ \times 15 \\ \hline 100 \\ + 200 \\ \hline 300 \end{array}$$

answer: **300**

6  $35 \times 10$

$$\begin{array}{r} 35 \\ \times 10 \\ \hline 350 \end{array}$$

answer: **350**

7  $20 \times 12$

$$\begin{array}{r} 20 \\ \times 12 \\ \hline 40 \\ + 200 \\ \hline 240 \end{array}$$

answer: **240**

8  $12 \times 18$

$$\begin{array}{r} 12 \\ \times 18 \\ \hline 196 \\ + 120 \\ \hline 216 \end{array}$$

answer: **216**

9  $28 \times 14$

$$\begin{array}{r} 28 \\ \times 14 \\ \hline 112 \\ + 280 \\ \hline 392 \end{array}$$

answer: **392**

Grade 5 Unit 3 Lesson 15

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Practice

## Practice Problem Item Analysis

	Problem(s)	DOK	TEKS
On-lesson	1	2	5.10.F
Test Practice	2	2	5.10.F
	3	2	5.10.E
Spiral Review			
Fluency	4–9	1	4.4.D

## Need more Practice?



Additional practice can be found in the **Practice Resources**, **Intervention and Extension Resources**, and online resources (item banks, Boost Personalized Learning, and Fluency Practice).

**Lesson Goal:** Describe actions that might be taken to balance a budget when expenses exceed income.

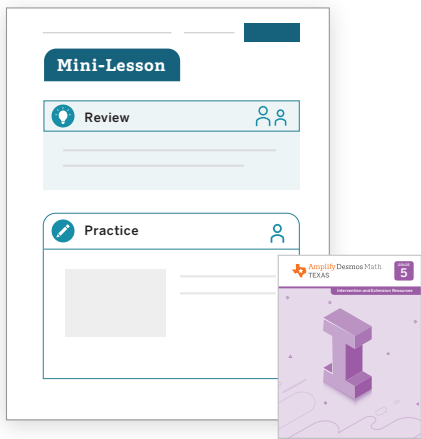
## S Support

Provide targeted intervention for students by using these resources.

**If students** determine that the expenses do not exceed the weekly net income:

### Respond:

- Assign the *Balancing a Budget* Mini-Lesson. | ⌚ 15 min
- Review the differences between income and expenses.



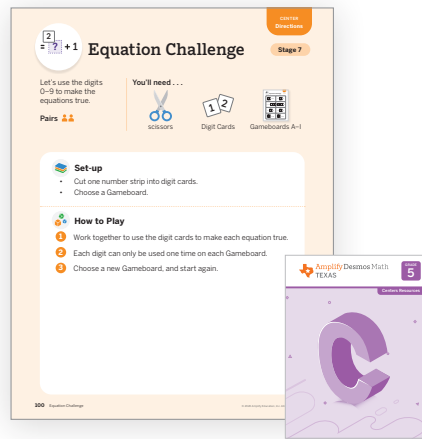
## S Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

**If students** determine that the expenses exceed the weekly net income and 1 way to balance the budget:

### Respond:

- Invite students to play the **Center**. | ⌚ 15 min  
*Equation Challenge: Add and Subtract Beyond 1,000*
- Have students complete **Lesson 15 Practice**. | ⌚ 15 min
- Item Bank**



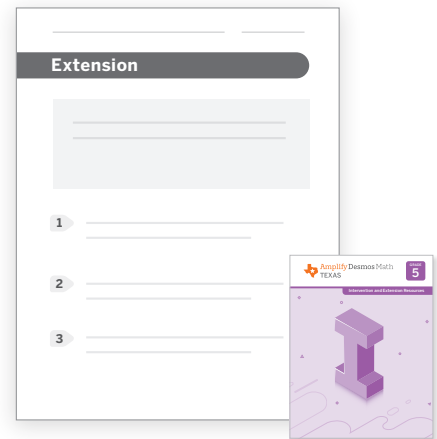
## S Stretch

Challenge students and extend their learning with these resources.

**If students** determine that the expenses exceed the weekly net income and identify more than 1 way to eliminate unnecessary expenses:

### Respond:

- Invite students to explore the **Sub-Unit 4 Extension Activities**. | ⌚ 15 min
- Revisit Activity 2 and invite students to respond to the **Stretch** question from the *Differentiation: Teacher Moves* table. | ⌚ 5 min



*Support, Strengthen, and Stretch* learning by assigning these digital resources that adjust to each student's current level of skill and understanding.

- **Boost Personalized Learning**
- **Fluency Practice**
- **Math Adventures**

## Math Language Development

**EB** Use the *Math Language Development Resources* for further language support with all your students, including those building English proficiency.

- English/Spanish cognates
- Frayer Model templates
- Vocabulary routines



### Professional Learning

What did you observe about your students during discussion time? What are some ways that you could learn more about your students to feel more inclusive in your math lesson?