4.6 Money Amounts

Essential Question How can you find an amount of money with coins and bills?

the 5 Es ENGAGE

GO DIGITAL Lesson Opener

Making Connections

Invite students to tell you what they know about U.S. bills and coins.

What are the names of the coins we use? (penny, nickel, dime, quarter) **How much is each coin worth?** (1 cent, 5 cents, 10 cents, 25 cents) **What are the values of the dollar bills we use?** (Possible answers: one dollar, five dollars, ten dollars)

Using the Digital Lesson

Have students use play money or have them draw bills and coins to model the bills and coins in the problem.

Learning Task

- **What problem does Doc want to solve?** (to find out how much money is in the golf cart)
- **What strategy can you use to solve this problem?** (List the value of each coin and bill, the number of coins and bills, and then add.)
- **What is a reasonable estimate for the amount of money in the pile?** ($15)

Literacy and Mathematics

You may choose one or both of the following activities.

- Have students write a story about a character who earns some money helping others around the house.
- Have students draw pictures of coins (pennies, nickels, dimes, and quarters) and bills, labeling each coin or bill with its value.

Texas Essential Knowledge and Skills

TEKS Number and Operations—3.4.C
Determine the value of a collection of coins and bills

MATHEMATICAL PROCESSES
3.1.A Apply mathematics to problems
3.1.C Select tools, technology, and techniques

Are You Ready?

Access Prior Knowledge

Use the *Are You Ready?* 4.6 in the *Assessment Guide* to assess students' understanding of the prerequisite skills for this lesson.

Vocabulary

GO DIGITAL Multimedia eGlossary at *thinkcentral.com*

Materials

play money

GO DIGITAL Resources

For the student

- iSE **Interactive Student Edition** *provides students with an interactive learning environment!*
- Math on the Spot Video Tutor
- iTools Virtual Manipulatives
- Soar to Success Math Online Intervention

For the teacher

- **Digital Management Center** *organizes program resources by TEKS!*
- eTE eTeacher Edition
- Online Assessment System

Unlock the Problem

Have students find the amount of money in Amanda's pocket. You may need to remind students how to draw simple representations of coins using a circle with the value written in the center.

- **Why is it helpful to order the bills from the greatest to least value before finding their value?** Possible answer: it is easier to find the values when the bills are in order from greatest to least value.
- **Are large-size coins always worth more than smaller coins?** Possible answer: No, larger coins are not always worth more than smaller coins. Dimes are worth more than nickels even though they are smaller than nickels.
- **How can you use skip counting to find the value of like coins?** Possible answer: I can count by 25s for quarters, by 10s for dimes, by 5s for nickels, and by 1s for pennies.

Name _____

4.6 Money Amounts

TEKS Numbers and Operations—3.4.C
MATHEMATICAL PROCESSES 3.1.A, 3.1.C

Essential Question How can you find an amount of money with coins and bills?

Unlock the Problem (Real World) (Hands On)

Materials ■ play money for coins and bills

Amanda has some money in her pocket. The money is shown below. How much money does she have?

• Circle the question.

Find the amount of money.

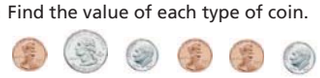
STEP 1: Find the value of each type of bill.

There is 1 $10 bill. That is worth $10.00.

There are 3 $1 bills. That is worth $3.00.

The value of the bills is $10.00 + $3.00 = $13.00.

STEP 2: Find the value of each type of coin.



There is 1 quarter. That is worth $0.25.

There are 2 dimes. That is worth $0.20.

There are 3 pennies. That is worth $0.03.

The value of the coins is $0.25 + $0.20 + $0.03 = $0.48.

Remember
Start with the bill or coin of the greatest value.

STEP 3: Add the values of the bills and coins in Amanda's pocket.

Total value of the bills: $13.00
Total value of the coins: + $0.48
Total value: $13.48

Think: The decimal point separates the dollars from the cents.

So, Amanda has $13.48 in her pocket.

ELL English Language Learners

Leveled Activities	ELPS
Beginning: Activity 31	2.C.2, 2.C.3, 3.B.3
Intermediate: Activity 53	1.A.2, 2.D.1, 3.F.1
Advanced: Activity 15	4.F.2, 4.F.6, 4.G.4
Advanced High: Activity 18	4.C.4, 4.E, 4.F.7

GO DIGITAL Go to *thinkcentral.com* for the **ELL Activity Guide** containing these leveled activities.

Differentiated Instruction

ELL Language Support

Verbal/Visual/Auditory

ELPS 3.F.2, 4.F.2

Strategy: Explore Context

Materials: pennies, nickels, dimes, quarters, one-dollar bill, five-dollar bill

- Show students each coin. As you show the coins, write the name of the coin on the board and ask volunteers to say how much each coin is worth. Say the names of the coins aloud for the students to repeat.
- In the U.S., coins are all part of one dollar, and one dollar equals 100 cents.
- Show the one-dollar and five-dollar bills. They have different values, but same size.
- Remind students that the size of a U.S. coin is not related to its value. A dime is smaller than a penny, but it is worth more.

The dime is smaller than the penny, but its value is greater.

Share and Show

MATH BOARD

Find the amount of money.

1. 

two $5 bills	= $ 10.00
+ one $1 bill	= $ 1.00
+ 2 quarters	= $ 0.50
+ 4 dimes	= $ 0.40
+ 3 nickels	= $ 0.15
+ 6 pennies	= $ 0.06
total value	= $ 12.11

2.  $17.00

3.  $2.54

Problem Solving

Write the value of the bills or coins.

4.  $20.00

5.  $1.40

6. H.O.T. Daniel has one $10 bill, five $1 bills, 3 quarters, 1 dime, and 3 nickels. How much money does Daniel have?

$16.00

Math Talk: Possible explanation: You need to regroup the number of cents to dollars.

Math Talk Mathematical Processes

Explain what happens when you have more than 99 cents in a group of coins.

Enrich

Visual Partners

Materials: play money

- Organize students into pairs.
- Ask students to use bills and coins to show $2.46. They should record their results.
- Ask them to find a different way to show the same amount, and record their results.

GO DIGITAL Go to *thinkcentral.com* for additional enrichment activities in the **Enrich Activity Guide**.

Share and Show

The first problem connects to the learning model. Have students use the MathBoard to explain their thinking.

Use the checked exercises for **Quick Check**. Students should show their answers for the Quick Check on the MathBoard.

RtI Quick Check

IF a student misses the checked exercises

THEN **Differentiate Instruction** with RtI Tier 1 Lesson 25

Problem Solving

Have students complete the problems on their own.

COMMON ERRORS

Error Student writes money amounts less than $0.10 incorrectly.

Example Student writes $0.07 as $.7 or $0.70

Springboard to Learning Remind students that the decimal point separates dollars and cents. If they have less than 10 cents, they place a zero to the right of the decimal point to show no dimes, Then they write the number of cents to the right of the zero.

Go Deeper

Have students describe the greatest number of coins they could have for Exercise 5.

H.O.T. Problem

Problem 6 describes the amount of money Daniel has with words and asks students to total the amount of money. Encourage students to draw the money if needed to solve the problem.

Math Talk Mathematical Processes

Use Math Talk to focus on students' understanding of regrouping coins.

Problem Solving

H.O.T. Problems

Problem 7 requires students to use higher order thinking skills and multiple steps to solve the problem. Have students read the problem and discuss strategies to find the solution.

Give students an opportunity to share their solution for this problem with the class.

Problem 8 is a multi-step problem where students count the coins and bills to find the amount of money Charlie earned. Knowing how much the additional lemonade will cost, students then decide if Charlie can afford more lemonade. Finally, students must find the amount of money Charlie will have left, after buying the lemonade.

Math on the Spot Video Tutor

Through the ***Math on the Spot Video Tutor***, students will be guided through an interactive solving of this type of H.O.T. problem. Use this video to also help students solve the H.O.T. problem in the Interactive Student Edition. With these videos and the H.O.T. problems, students will build skills needed in the TEXAS assessment.

GO DIGITAL **Math on the Spot** videos are in the Interactive Student Edition and at *thinkcentral.com*.

Name _____

Problem Solving Real World

7. H.O.T. **Multi-Step** Erin has only quarters. She has more than 75¢. Which amount could Erin have?

Ⓐ $0.50 Ⓒ $1.15

Ⓑ $0.95 ● $1.25

a. What do you need to find?

the amount of money Erin has

b. What information will you use to solve the problem?

Erin has only quarters. She has more than 75¢.

c. Show the steps you used to solve the problem.

Hands On

Possible answer: first, I counted out three quarters to show 75¢. Then I continued to count on with quarters until I reached $1.25. So, Erin has $1.25.

d. Complete the sentences.

Erin has only quarters.

Erin has more than 75¢.

Erin has $1.25.

e. Fill in the bubble for the correct answer choice above.

8. H.O.T. **Multi-Step** Charlie earned the bills and coins below at his lemonade stand.

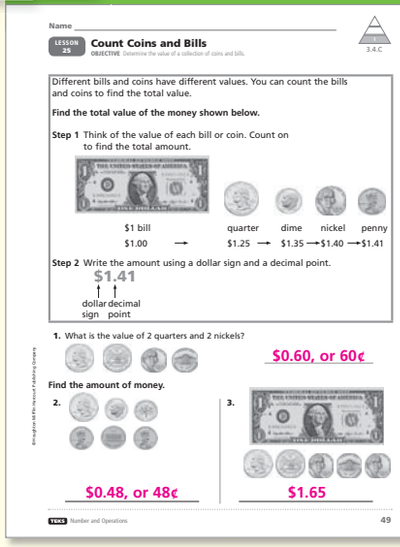
Does Charlie have enough money to buy more lemonade for $8.00? How much money will he have left? **Explain.**

Yes, $4.90: Possible explanation: Charlie earned $12.90 which is more money than $8.00.

From the $12.90, subtract what he will spend for lemonade. $12.90 − 8.00 = $4.90

Differentiated Instruction

RtI Tier 1 Lesson 25



Name _____

LESSON 25 **Count Coins and Bills**

OBJECTIVE Determine the value of a collection of coins and bills.

3.4.C

Different bills and coins have different values. You can count the bills and coins to find the total value.

Find the total value of the money shown below.

Step 1 Think of the value of each bill or coin. Count on to find the total amount.

$1 bill $1.00 → quarter $1.25 → dime $1.35 → nickel $1.40 → penny $1.41

Step 2 Write the amount using a dollar sign and a decimal point.

$1.41

dollar sign, decimal point

1. What is the value of 2 quarters and 2 nickels?

$0.60, or 60¢

Find the amount of money.

2.

$0.48, or 48¢

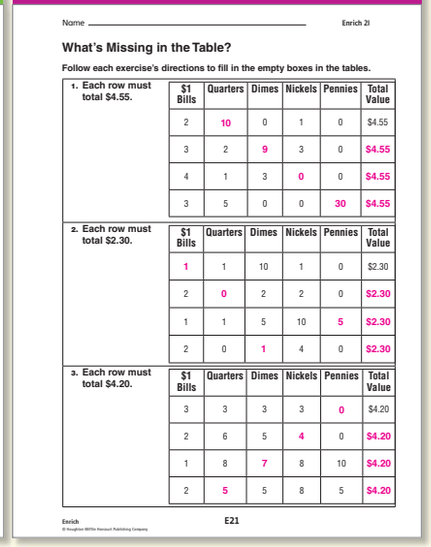
3.

$1.65

TEKS Number and Operations

49

Enrich 21



Name _____ Enrich 21

What's Missing in the Table?

Follow each exercise's directions to fill in the empty boxes in the tables.

1. Each row must total $4.55.

$1 Bills	Quarters	Dimes	Nickels	Pennies	Total Value
2	10	0	1	0	$4.55
3	2	9	3	0	$4.55
4	1	3	0	0	$4.55
3	5	0	0	30	$4.55

2. Each row must total $2.30.

$1 Bills	Quarters	Dimes	Nickels	Pennies	Total Value
1	1	10	1	0	$2.30
2	0	2	2	0	$2.30
1	1	5	10	5	$2.30
2	0	1	4	0	$2.30

3. Each row must total $4.20.

$1 Bills	Quarters	Dimes	Nickels	Pennies	Total Value
3	3	3	3	0	$4.20
2	6	5	4	0	$4.20
1	8	7	8	10	$4.20
2	5	5	8	5	$4.20

Enrich E21

Mathematical Processes
Model • Reason • Communicate

Daily Assessment Task

Fill in the bubble for the correct answer choice.

9. **Representations** Alejandro saved the money shown. How much did he save?

Ⓐ $1.62
● $3.87
Ⓑ $2.76
Ⓓ $3.97

10. **Multi-Step** Kara has exactly enough money to buy the puzzle. She has one $5 bill, two $1 bills, and seven coins. What coins does she have?

Ⓐ 3 dimes and 4 pennies
Ⓑ 2 dimes, 1 nickel, and 4 pennies
● 1 quarter, 2 nickels, and 4 pennies
Ⓓ 1 quarter, 1 dime, 1 nickel, and 4 pennies

TEXAS Test Prep

11. What amount of money is shown below?

Ⓐ $14.50
Ⓒ $13.30
● $14.25
Ⓓ $14.10

Grab-and-Go!™ Ready-Made Independent Activities

Differentiated Centers Kit

Games
Money Mania
Students practice comparing money amounts.

Literature
The Penny Bank
Students read about subtraction and regrouping using pennies and dimes.

5 the 5 Es EVALUATE

Daily Assessment Task RtI

Can students find an amount of money?

IF	THEN
NO	• Soar to Success Math Warm-Up 4.15
YES	• Enrich 21 • Homework and Practice Lesson 4.6

TEXAS Test Prep Coach

Test Prep Coach helps teachers to identify common errors that students can make.

In the Test Prep exercise, if students selected:

A They added too many quarters.

C or D They did not add and regroup the number of cents correctly to dollars.

Essential Question

Write Math

How can you find an amount of money with coins and bills? Possible answer: Find the number of each type of bill or coin. Then find the values of the like bills or coins. Finally add the values of each type of bill or coin.

Homework and Practice

TEKS Number and Operations—3.4.C
MATHEMATICAL PROCESSES 3.1.A, 3.1.C

Name _____

4.6 Money Amounts

Find the amount of money.

1. 
$11.00

2. 
$1.40

3. 
$6.03

4. 
$15.85

Problem Solving Real World

5. Ally has one $5 bill and two $1 bills. How much money does Ally have?
$7.00

6. A cashier gives a customer change. She gives one quarter, 1 dime, and 3 pennies. What is the value of the change?
$0.38

Lesson Check

TEXAS Test Prep

Fill in the bubble completely to show your answer.

7. Hal has only quarters. He has less than $1.00. Which amount could Hal have?
Ⓐ 45¢ Ⓒ $1.25
Ⓑ 65¢ ● 75¢

8. Tim gets change in all dimes. He gets less than 50¢. Which amount could Tim get for change?
Ⓐ 60¢ ● 40¢
Ⓑ 35¢ Ⓓ 25¢

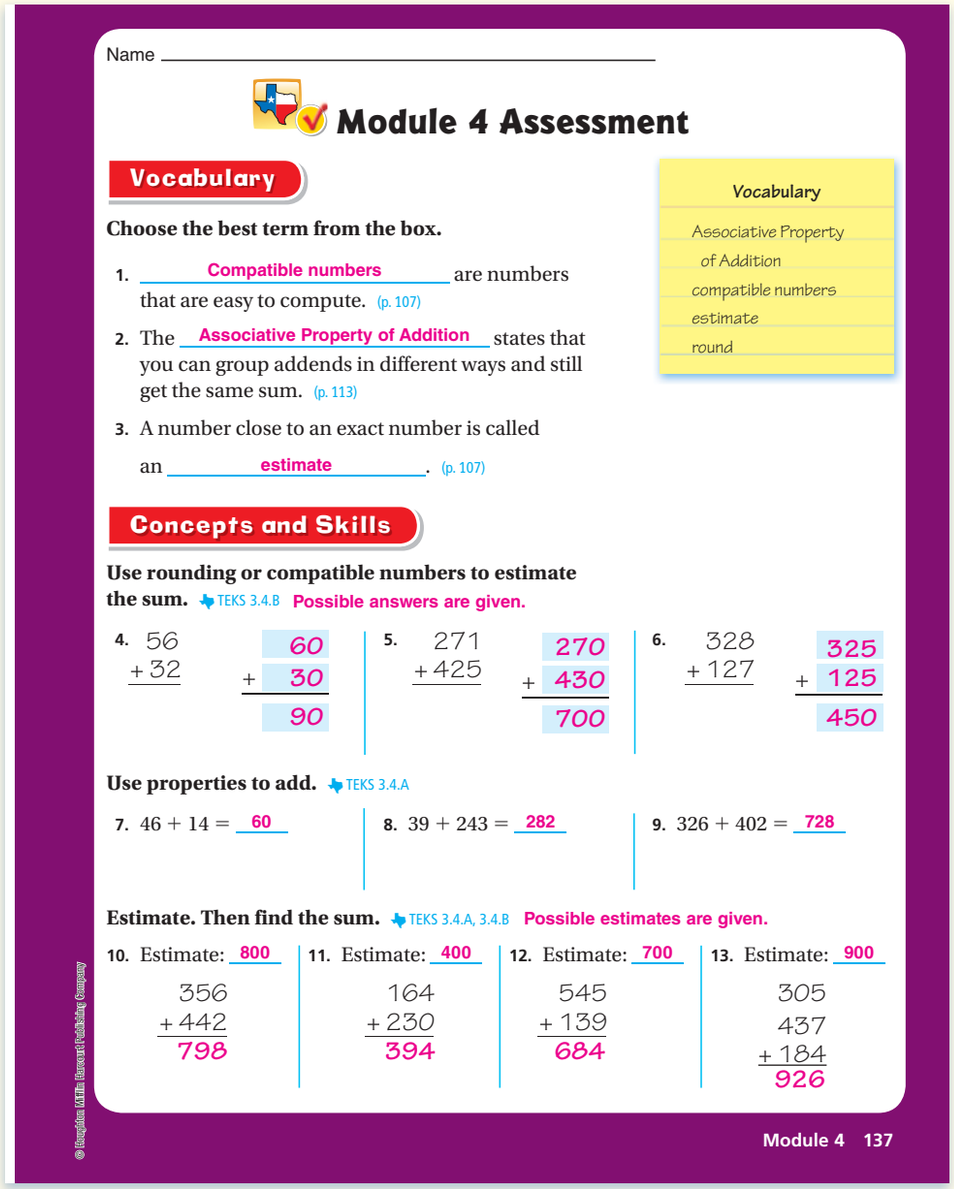
9. Dave spent the amount of money shown. How much did he spend?
● $3.48
Ⓑ $3.23
Ⓒ $3.47
Ⓓ $2.48

10. **Multi-Step** Kyle has the exact amount of money to buy a bus ticket. He has one $5 bill. What coins does he have?

Ⓐ 
● 
Ⓑ 
Ⓓ 

Homework and Practice

Use the Homework and Practice pages to provide students with more practice on the concepts and skills of this lesson.



Name _____

Module 4 Assessment

Vocabulary

Choose the best term from the box.

Vocabulary
- Associative Property of Addition
- compatible numbers
- estimate
- round

1. Compatible numbers are numbers that are easy to compute. (p. 107)
2. The Associative Property of Addition states that you can group addends in different ways and still get the same sum. (p. 113)
3. A number close to an exact number is called an estimate. (p. 107)

Concepts and Skills

Use rounding or compatible numbers to estimate the sum. TEKS 3.4.B Possible answers are given.

4. 56 + 32 → 60 + 30 = 90
5. 271 + 425 → 270 + 430 = 700
6. 328 + 127 → 325 + 125 = 450

Use properties to add. TEKS 3.4.A

7. 46 + 14 = 60
8. 39 + 243 = 282
9. 326 + 402 = 728

Estimate. Then find the sum. TEKS 3.4.A, 3.4.B Possible estimates are given.

10. Estimate: 800
    356 + 442 = 798
11. Estimate: 400
    164 + 230 = 394
12. Estimate: 700
    545 + 139 = 684
13. Estimate: 900
    305 + 437 + 184 = 926

Module 4 137

Formative Assessment

Use the Module Assessment to assess students' learning and progress. The formative assessment provides the opportunity to adjust teaching methods for individual or whole class instruction.

Data-Driven Decision Making RtI

Based on the results of the Module 4 Assessment, use the following resources to strengthen individual or whole class instruction.

Item	Lesson	TEKS*	Common Error	Intervene With RtI* Tier 1 Lessons	Soar to Success Math
4–6	4.1, 4.2	3.4.B	May not look at the digit to the immediate right when rounding, or use a compatible number.	22, 23	15.15, 15.17 16.27
7–9	4.3	3.4.A	May not change order or grouping to find an easier way to add	16	10.42
10–13	4.4, 4.5	3.4.A, 3.4.B	May incorrectly use the break apart or place value strategies	17, 18	10.30, 10.41

***TEKS**—Texas Essential Knowledge and Skills; **RtI**—Response to Intervention

14. Nancy planted 48 roses and 39 tulips. Which is the best estimate for the number of flowers she planted?

Record your answer and fill in the bubbles on the grid. Be sure to use the correct place value. TEKS 3.4.B

TEXAS Test Prep

	9	0	.
⓪	⓪	●	
①	①	①	
②	②	②	
③	③	③	
④	④	④	
⑤	⑤	⑤	
⑥	⑥	⑥	
⑦	⑦	⑦	
⑧	⑧	⑧	
⑨	●	⑨	

Fill in the bubble for the correct answer choice.

15. Jacob has some money in his bank. The money is shown below. How much money does he have in his bank? TEKS 3.4.C

Ⓐ $18.23 Ⓒ $19.28

Ⓑ $20.48 ● $19.46

16. There are 294 boys and 332 girls in the Hill School. How many students are in the school? TEKS 3.4.A

Ⓐ 526 ● 626

Ⓑ 637 Ⓓ 172

17. On Monday, 76 students played soccer. On Tuesday, 62 students played soccer. On Wednesday, 68 students played soccer. How many students played soccer on those three days? TEKS 3.4.A

Ⓐ 207 ● 206

Ⓑ 196 Ⓓ 216

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Depth of Knowledge	
DOK Level	**Items**
1	4–13
2	14–17

Data-Driven Decision Making RtI

Item	Lesson	TEKS*	Common Error	Intervene With RtI* Tier 1 Lessons	Soar to Success Math
14	4.2	3.4.B	May not estimate numbers correctly	23	16.27
15	4.6	3.4.C	May not count coins and dollars correctly to find total amount	25	4.15
16	4.4	3.4.A	May incorrectly use break apart or place value strategies for adding	17	10.30
17	4.3	3.4.A	May change the order or grouping incorrectly	16	10.42

***TEKS**—Texas Essential Knowledge and Skills; **RtI**—Response to Intervention