

- Naming Dollars and Cents
- Exchanging Dollars, Dimes, and Pennies

Power Up

facts

Power Up 21

jump start

- Count up by 3s from 0 to 30.
Count up by 7s from 0 to 35.
- Draw hands on your clock to show “half past four.”
It is morning. Write the time in digital form.
- Mark your thermometer to show 1°C .
- Write “forty cents” using digits and a dollar sign.

mental math

- Number Sense:** $6 + 11$
- Number Sense:** $15 - 10$
- Expanded Form:** $100 + 70 + 6$
- Number Line:** Which point represents the number 6?



problem solving

Ms. Spurlin asked her students to name their favorite meal of the day. This pictograph shows how the students voted. Write a number sentence to find the total number of students.

Students' Favorite Meal

Meal	Number of Students
Breakfast	
Lunch	
Dinner	

Key
 = 1 student

New Concepts

Naming Dollars and Cents

We can use a number followed by a cent sign (¢) to show an amount of money. A number followed by a cent sign shows the value in cents (pennies).

324¢

20¢

4¢

We can show a value in cents or in dollars. The dollar sign (\$) is written in front of the numbers to show a value in dollars. We use a **decimal point** followed by two places to show cents. Here we show the same amounts of money using a dollar sign instead of a cent sign.

\$3.24

\$0.20

\$0.04

We read \$3.24 by saying, “3 dollars and 24 cents.” To read \$0.20 we say, “20 cents.” We do not read the zero in the dollars place. To read \$0.04 we just say “4 cents.”

Notice that we do not use a dollar sign and a cent sign together.

\$3.24¢ **INCORRECT**

Exchanging Dollars, Dimes, and Pennies

We can gain a better understanding of money exchange by practicing with bills and coins. For this lesson’s activities we will use only the \$1 bills, dimes, and pennies from the money kit. These items are traded or grouped by tens.



Activity

Exchange Pennies for Dimes

Materials: **Lesson Activity 11**, money manipulatives

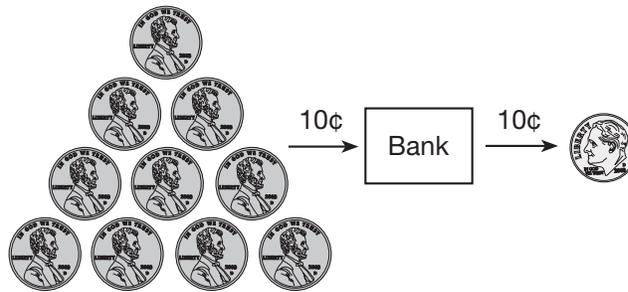
Cut apart the dimes and pennies on **Lesson Activity 11**. Put these with your other money manipulatives. We will call this play money your “money kit.”

Take 12 pennies from your money kit and place them on your desk. We will call the money still in your kit “the bank.”



1. Name the money on your desk using digits and a cent sign.
2. How can we make the same amount of money using fewer coins?

Trade 10 of the pennies on your desk for 1 dime from the bank.



Put the dime on your desk with the remaining pennies.

3. How much money is on your desk now?



4. How do the digits in 12¢ describe the number of coins on your desk?

Exchange Dimes for Dollars

Put 14 dimes and 5 pennies on your desk.

5. How much money is on your desk?
6. How can we make the same amount of money using fewer coins?

Trade 10 of the dimes on your desk for a \$1 bill from the bank. Place the \$1 bill on your desk with the remaining coins. Arrange the money so that the \$1 bill is on the left, the dimes are in the middle, and the pennies are on the right.



7. Now how much money is on your desk?
8. How do the digits 1, 4, and 5 in \$1.45 describe the money on your desk?

Generalize If you add 3 dimes to the money on your desk, how much money will you have?

Lesson Practice

- a. Describe three ways to make 21¢ using coins from the money kit.
- b. Describe how to make \$3.45 from the money kit using the fewest number of bills and coins.
- c. How much money is three \$1 bills, 11 dimes, and 12 pennies? Describe how to make the same amount of money using the fewest number of coins.

Written Practice

Distributed and Integrated

1. List the last three months of the year and the number of days in each of those months.
(1)

Formulate Write number sentences for the stories in problems 2 and 3.

Then write a complete sentence to answer each question.

2. Mike had \$450. He paid Rita \$140. Then how much money did Mike have?
(20)

3. Jenny had \$36. She earned \$12 more. Then how much did Jenny have?
(18)

4. **Model** Use money to show this subtraction. Then subtract using pencil and paper.
(14)

$$\$62 - \$28$$

5. Use words to write \$873.
(12)

6. **Model** Use money to show this subtraction. Then subtract using pencil and paper.
(14)

$$\$80 - \$54$$

What are the next four numbers in each sequence?

7. 8, 16, 24, _____, _____, _____, _____, ...
(2)

8. 4, 8, 12, _____, _____, _____, _____, ...
(2)

9. **Analyze** Show how to write ten minutes before midnight in digital form.
(3)

Add or subtract, as shown:

10. $8 + 9 + 10$
(10)

11. $\$54 - \12
(14)

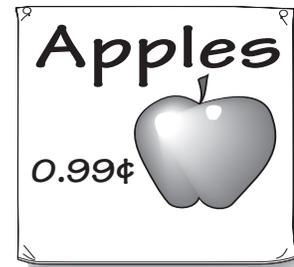
12. $\$36 + \47
(13)

13. $\$56 - \21
(14)

14. $495 + 10$
(16)

15. $34 - 25$
(14)

16. The sign is incorrect. Show two ways to write 99 cents.
(21)



Find the missing addend:

17. $9 + 4 + m = 15$
(9, 10)

18. $100 = 75 + \square$
(9)

19. The sun rose at 5:40 a.m. The minute hand points to what number at 5:40 a.m.?
(3)

20. Finish this rhyme: "Thirty days hath September..."
(1)

Early Finishers
Real-World Connection

An odometer shows you how many miles you've driven in your car. The Changs' car had 347 miles on the odometer when they left for a 148-mile trip to Port Aransas. What did the odometer read when they got to Port Aransas?

• Adding Dollars and Cents

Power Up

facts

Power Up 22

jump start



Count up by 5s from 50 to 100.
Count up by 10s from 100 to 200.



Draw hands on your clock to show “quarter to seven.” It is evening. Write the time in digital form.



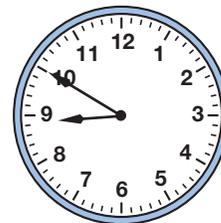
Mark your thermometer to show 43°F .



Use the numbers 3, 6, and 9 to write one addition fact and one subtraction fact.

mental math

- Number Sense:** $9 + 9$
- Number Sense:** $12 - 9$
- Estimation:** Is \$43 closer to \$40 or \$50?
- Time:** It is night. What time will it be 3 hours after the time shown on this clock?



problem solving

Jim kept a table to show how many books he read each month. How many more books did Jim read in May than in February?

Month	Number of Books
January	3
February	5
March	4
April	4
May	7

New Concept



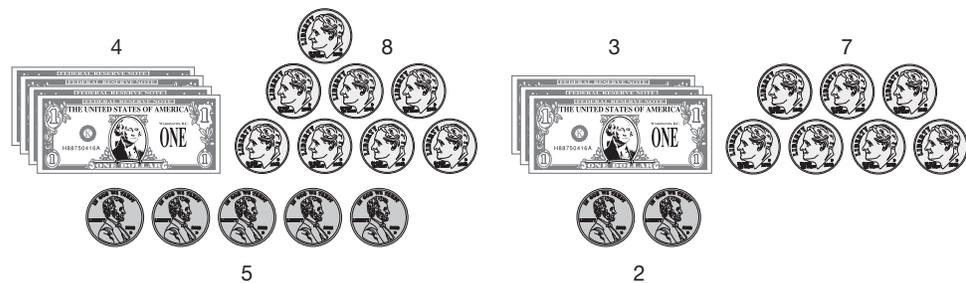
Visit www.SaxonMath.com/Int3Activities for an online activity.

In the following “some and some more” story, we need to add dollars and cents to answer the question. We will show how to find the answer by using money manipulatives and by using pencil and paper.

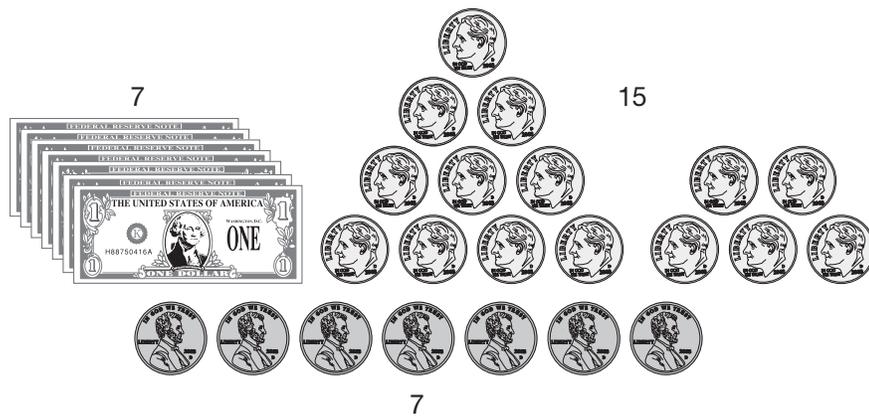
Example

Clara bought a book for \$4.85 and a game for \$3.72. What was the total price of the book and the game?

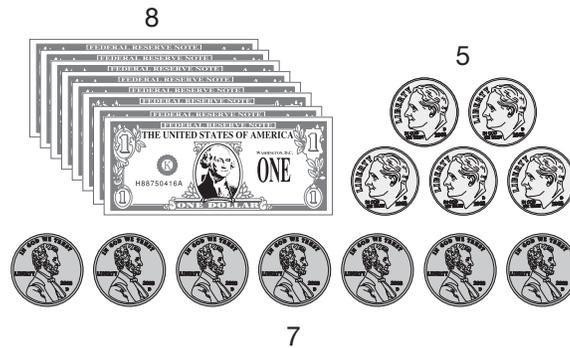
On one side of the desk we count out \$4.85 for the book. On the other side of the desk we count out \$3.72 for the game.



Now we combine the bills and coins to find out how much the items cost altogether. This is what we have.



We see that we need to regroup the dimes. We take ten dimes to the “bank” and trade them for one \$1 bill. This gives us eight \$1 bills and five dimes.



We see that the book and the game together cost **\$8.57**.

We can use pencil and paper to find the total price. We start with the digits on the right.

$$\begin{array}{r}
 1 \\
 \$4.85 \\
 + \$3.72 \\
 \hline
 .57
 \end{array}$$

We add 5 pennies and 2 pennies and get 7 pennies. Then we add 8 dimes and 7 dimes and get 15 dimes. Since 10 of the 15 dimes make 1 dollar, we write a 5 in the dimes column and we write a 1 in the dollar column. We place the decimal point to separate dollars from cents. Next we add 4 dollars and 3 dollars and the 1 dollar from the 10 dimes. This makes 8 dollars. Again, the total is **\$8.57**.

$$\begin{array}{r}
 1 \\
 \$4.85 \\
 + \$3.72 \\
 \hline
 \$8.57
 \end{array}$$

Formulate If the game cost just 72 cents, show how to write the addition problem and then find the total price.

Lesson Practice

Add using money manipulatives. Then add using pencil and paper.

a.
$$\begin{array}{r}
 \$6.44 \\
 + \$3.38 \\
 \hline
 \end{array}$$

b.
$$\begin{array}{r}
 \$2.72 \\
 + \$5.18 \\
 \hline
 \end{array}$$

c. Nathan bought a game for \$6.29 plus \$0.44 tax. What was the total price?

1. How much money is five \$1 bills, twelve dimes, and fifteen pennies?
(21)

2. On his first turn, Tom scored 164 points. On his second turn he scored 200 points. How many points did Tom score altogether?
(18)

3. Tania had three \$100 bills and four \$10 bills. She had to pay Latisha \$30. Then how much money did Tania have?
(20)

4. **Model** Use money to show this subtraction. Then subtract using pencil and paper.
(14)

$$\$81 - \$27$$

5. Use digits and a dollar sign to write one hundred five dollars.
(12)

6. What month is four months after the tenth month?
(1)

7. **Conclude** What are the next four numbers in this sequence?
(2)

18, 24, 30, _____, _____, _____, _____, ...

8. **Multiple Choice** The price of a jacket is about \$80. Which price below rounds to \$80?
(15)

A \$73

B \$93

C \$82

D \$89

Add or subtract, as shown:

9. $\begin{array}{r} \$79 \\ - \$55 \\ \hline \end{array}$
(13)

10. $\begin{array}{r} 25 \\ + 25 \\ \hline \end{array}$
(13)

11. $\$46 - \35
(14)

12. $48 + 63$
(13)

13. $\$52 - \32
(14)

14. $4 + 7 + 10$
(10)

15. **Model** Use money to show this subtraction. Then subtract using pencil and paper.
(14)

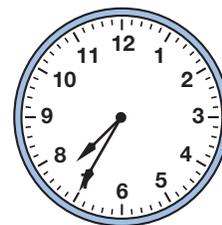
$$\$60 - \$24$$

Find the missing addend:

16. $350 + m = 450$
(9)

17. $\square + 10 + 15 = 30$
(9, 10)

18. Sandra looked at the clock after dinner. What time was it?
(3)



19. Write 2¢ using a dollar sign, and write \$0.10 using a cent sign.
(21)

20. **Model** Draw a number line from 10 to 30 with tick marks representing each counting number. Label the tick marks for 10, 20, and 30 on your number line and place a point at 25.
(4)

Early Finishers
Real-World Connection

Marcus brought 6 dimes, 3 nickels, and 4 pennies to school. He gave 2 dimes to the lunch lady for a snack. How much money does he have left?

• Subtracting Three-Digit Numbers, Part 2

Power Up

facts

Power Up 23

jump start



Count up by 3s from 0 to 30.
Count up by 7s from 0 to 35.



Draw hands on your clock to show “quarter after two.”
It is morning. Write the time in digital form.



Mark your thermometer to show 29°F.



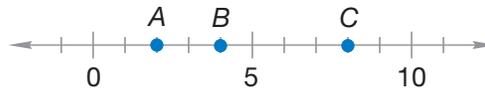
Use the numbers 5, 6, and 11 to write one addition fact and one subtraction fact.

mental math

- Money:** $70\text{¢} + 20\text{¢}$
- Patterns:** 100, 200, 300, 400, _____
- Calendar:** The year 2000 was a leap year. Which of the following years is also a leap year?

1999 2004 2005 2007

- Number Line:** Which point represents the number 2?



problem solving

Together, Jennie and Laura picked 8 flowers. Laura picked 2 more flowers than Jennie. How many flowers did each girl pick?

New Concept

When we subtract money, we often need to “go to the bank” to trade a larger bill for ten smaller bills.

We cannot subtract 5 from 2, so we trade one of the hundreds for 10 tens. We show that we are trading one of the hundreds by drawing a line through the 5 and writing a 4 above it. We now have 4 hundreds and 12 tens, which we show by placing a small 1 in front of the 2, like this: We are ready to subtract.

$$\begin{array}{r} 4 \\ \cancel{5}20 \\ - \$ 50 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \cancel{5}^120 \\ - \$ 50 \\ \hline \$470 \end{array}$$

Roger had \$470 left.

Generalize How many \$10 bills are equal to \$520?

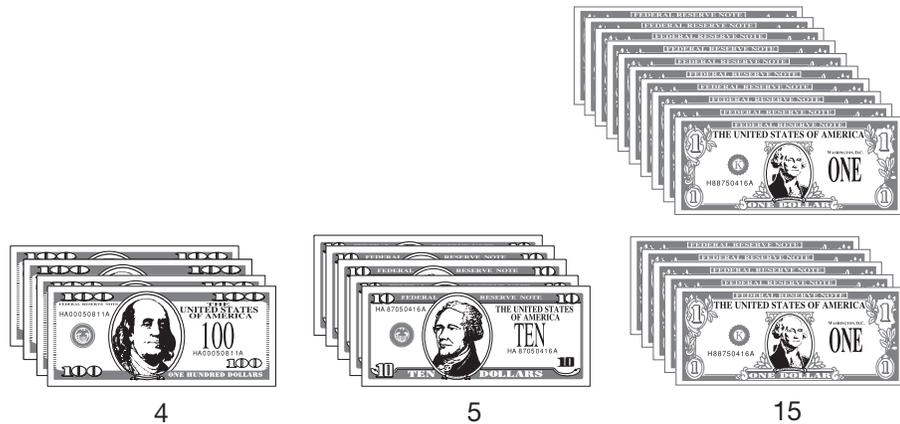
Example 2

Mrs. Jones had \$465. She paid \$247 for her new microwave oven. How much money did she have left?

First we will show the solution using money. Mrs. Jones started with \$465.



She spent \$247, or two \$100 bills, four \$10 bills, and seven \$1 bills. Since she only had five \$1 bills, we will trade one \$10 bill for ten \$1 bills. That leaves four \$100 bills, five \$10 bills, and fifteen \$1 bills.



Now we can take away seven \$1 bills, four \$10 bills, and two \$100 bills. **Mrs. Jones had \$218 left.**

Now we will show a pencil and paper solution.

$$\begin{array}{r} \text{Start} \\ \downarrow \\ \$465 \\ - \$247 \\ \hline \end{array} \quad \text{We start with} \\ \text{the ones place.}$$

We cannot subtract seven from five so we trade 1 ten for 10 ones. Then we subtract.

$$\begin{array}{r} \\ \$4\cancel{6}5 \\ - \$247 \\ \hline \$218 \end{array}$$

Lesson Practice

Perform each subtraction in **a–c** using money manipulatives and using pencil and paper.

a.
$$\begin{array}{r} \$426 \\ - \$176 \\ \hline \end{array}$$

b.
$$\begin{array}{r} \$584 \\ - \$126 \\ \hline \end{array}$$

c.
$$\begin{array}{r} \$714 \\ - \$342 \\ \hline \end{array}$$

- d. The groceries cost \$70. The customer has \$130. How much money will the customer have left?
- e. Margie went to the mall with \$242. She spent \$28. Then how much money did Margie have?

Written Practice

Distributed and Integrated

Formulate Write number sentences for the stories in problems **1–3**.

Then write a complete sentence to answer each question.

- ⁽¹⁸⁾ Matt spent \$160 on Saturday and \$45 on Sunday. How much money did he spend in all?
- ⁽²⁰⁾ Christie gave the clerk \$45. The clerk kept \$32 and gave the rest of the money back to Christie. How much money did the clerk give Christie?
- ⁽²⁰⁾ Anita has a big box of 516 raisins. She put 150 raisins in a bag and packed it in her lunch. How many raisins are left in the box?

4. **Model** Use money to show this addition. Then add using pencil and paper.

$$\begin{array}{r} \$6.45 \\ + \$5.35 \\ \hline \end{array}$$

5. Write 375 in expanded form.
6. Use 2, 7, and 9 to write two addition facts and two subtraction facts.

What are the next four numbers in each sequence?

7. 9, 12, 15, _____, _____, _____, _____, ...
8. 21, 28, 35, _____, _____, _____, _____, ...
9. **Analyze** How much money is six \$1 bills, eleven dimes, and sixteen pennies?

Add or subtract, as shown:

10. $\$24 + \50

11. $\$330 - \250

12. $5 + 8 + 6$

13. $\$516 - \70

14. $463 + 250$

15. $\$687 - \500

Find the missing addend:

16. $m + 45 = 50$

17. $\square + 40 = 100$

18. To what number is this arrow pointing?



19. **Interpret** Kiana has pen pals in four different countries. She wants to send each pen pal a book. The table below shows the cost to send a book to each country.

Country	Cost
Guatemala	\$62
Canada	\$38
India	\$58
France	\$47

Order the costs from least to greatest.

20. Use words to write \$202.

Early Finishers
Real-World Connection

Cori and Austin are buying a new remote control car together. Austin has \$17 and Cori has \$13. If the remote control car costs \$56, how much more money do Austin and Cori need to buy the car?

• Column Addition

Power Up

facts

jump
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solving

Power Up 24

-  Count down by 2s from 30 to 0.
Count down by 5s from 60 to 0.
-  The school bell rang at 8:25 in the morning. Draw hands on your clock to show this time. Write the time in digital form.
-  Mark your thermometer to show 27°C.
-  Write 341 in expanded form.
- Number Sense:** $8 + 11$
 - Estimation:** Is \$86 closer to \$80 or \$90?
 - Money:** $30¢ + 40¢$
 - Money:** Write the total value of these coins with a cent sign.



As Kara walked through the auditorium, she counted the number of people in each row of seats. If the pattern continues, predict the number of people in the fifth and sixth rows.

12, 22, 32, 42, _____, _____

New Concept

Arranging numbers in columns helps us to add when we use pencil and paper.

Example 1

Mr. Jones paid a \$25 gas bill, a \$72 electric bill, and a \$46 water bill. Add to find the total amount he paid.

$$\begin{array}{r} \$25 \\ \$72 \\ + \$46 \\ \hline \end{array}$$

When we add with pencil and paper, we start with the digits with the least place value. So we add the digits in the ones column first.

$$\begin{array}{r} \text{Start} \\ 1 \downarrow \\ \$25 \\ \$72 \\ + \$46 \\ \hline 3 \end{array}$$

The sum of 5, 2, and 6 is 13. Remember that the number 13 is 1 ten plus 3 ones. We write the 3 in the ones column and the 1 in the tens column. Next we add the digits in the tens column.

$$\begin{array}{r} \downarrow \\ 1 \\ \$25 \\ \$72 \\ + \$46 \\ \hline \$143 \end{array}$$

The sum of 2, 7, 4, and 1 is 14. This is 14 tens, which is the same as 1 hundred and 4 tens. So the total is **\$143**.

Analyze Show two more ways to add \$25, \$72, and \$46.

Example 2

Write in a column and add:

$$\$345 + \$76 + \$120$$

We arrange the numbers so that digits with the same place value are in a column. Then we add

$$\begin{array}{r} \\ \$345 \\ \$ 76 \\ + \$120 \\ \hline \$541 \end{array}$$

Lesson Practice

Arrange in columns and add. You may use your money manipulatives.

a. $\$42 + \$56 + \$25$

b. $\$24 + \$35 + \$60$

c. $\$25 + \$25 + \$25$

d. $\$125 + \$50 + \$25$

Written Practice

Distributed and Integrated

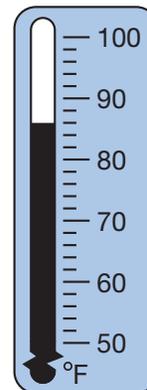
- ⁽²⁰⁾ Christine had \$87. She gave \$25 to her brother. Then how much money did Christine have?
- ^(18, 22) Daniel paid \$2.65 for a sandwich plus \$0.21 tax. Altogether, how much did he pay?
- ⁽¹⁷⁾ Write these numbers in order from least to greatest: 58, 52, 63.
- ⁽²²⁾ **Model** Use money to show this addition. Then add using pencil and paper.
$$\$3.54 + \$8.65$$
- ^(15, 24) **Formulate** Kane bought a bag of dog food for \$21, a dog house for \$83 and a dog toy for \$16. Round these numbers to the nearest ten. Write a number sentence using the rounded amounts to find about how much Kane spent on his dog.

6. Is the temperature outside closer to 80°F or 90°F?
(4, 15)

7. Use words to write \$450.
(12)

8. Use 10, 2, and 8 to write two addition facts and two subtraction facts.
(8)

9. Show how to write half past noon in digital form.
(5)



What are the next four numbers in each sequence?

10. 14, 21, 28, 35, _____, _____, _____, _____, ...
(2)

11. 8, 12, 16, 20, _____, _____, _____, _____, ...
(2)

Add or subtract, as shown:

12. $\$384 - \70
(23)

13. $8 + 7 + 5 + 10$
(10)

14. $450 - 400$
(23)

15. $\$587 - \100
(23)

16. $\$875 - \250
(23)

17. $\$15 + \$25 + \$35$
(24)

Find the missing addend:

18. $37 + m = 137$
(9)

19. $\square + 25 = 75$
(9)

20. The dot represents what number?
(4)



Early Finishers
Real-World Connection

Gene moved to a new school on the 24th day of the 2nd month of a common year. When his new teacher introduced him to the class, Gene told them that his birthday was only seven days away. When is Gene's birthday? How many days away would Gene's birthday be if it were a leap year?