


• Place Value


Power Up


facts

Power Up 11

jump
start

 Count up by 10s from 0 to 100.
Count up by 25s from 0 to 200.

 Draw hands on your clock to show “quarter to 10.” It is night. Write the time in digital form.

 Mark your thermometer to show 36°F .

mental
math

- a. **Number Sense:** Use the numbers 4, 5, and 9 to write a subtraction fact.
- b. **Number Sense:** $9 + 1 + 3$
- c. **Number Sense:** $8 + 2 + 3$
- d. **Money:** Find the value of these coins:

problem
solving

Kaniyah drew this number line.



She forgot to label two of the tick marks. What two numbers are missing? Explain your answer.

New Concept

There are ten **digits** in our number system:

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

These 10 digits can be used to make any number. The number 247 has three digits, 2, 4, and 7.

Each digit in a number has a place value. The **place value** of a digit is decided by its position in the number. We can write the number 247 in a place value chart.




| Hundreds | Tens | Ones |
|----------|------|------|
| 2 | 4 | 7 |

The 2 in the hundreds place has a value of 2 hundreds or 200.

The 4 in the tens place has a value of 4 tens or 40.

The 7 in the ones place has a value of 7 ones or 7.

Money can help us understand our number system. For example, we can use \$100 bills, \$10 bills, and \$1 bills to show place value.

| Hundreds | Tens | Ones |
|---|--|---|
|  |  |  |

Read this story and see if you can figure out how much money Cindy had.

Cindy played a board game with her friends. At the end of the game, Cindy counted all of her money. She had three \$10 bills, seven \$1 bills, and five \$100 bills. How much money did Cindy have?

We will place the bills in three groups. The \$100 bills have the greatest value. We place the \$100 bills on the left. Next we place the \$10 bills beside them. Then we place the \$1 bills to the right.



We see that Cindy had five hundreds, three tens, and seven ones. She had 537 dollars, which we can write as \$537 or \$537.00.



Activity

Place Value

Materials: **Lesson Activity 6** and **Lesson Activities 7–9** or money manipulatives (bills only)

Cindy's friend counted her money at the end of the game. She had eight \$1 bills, four \$100 bills, and nine \$10 bills. How much money did Cindy's friend have?

Use your place value chart and bills to show how much money Cindy's friend has. Write this amount of money using a dollar sign.

Example 1

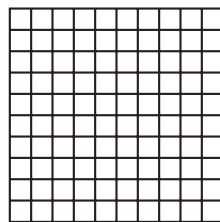
Matt counted his money. He had six \$1 bills, four \$100 bills, and three \$10 bills. How much money did Matt have?

We arrange the money mentally: first hundreds, then tens, then ones.

4 hundreds, 3 tens, 6 ones

Matt had \$436.

We can also show place value using base-10 blocks.



A flat has 100 cubes.
It has a value of 100.



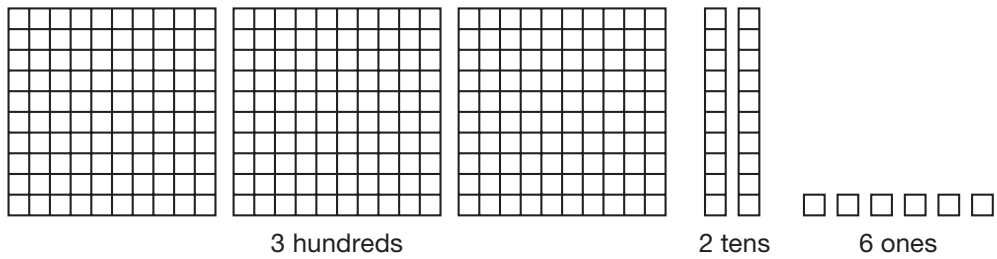
A 10-stick has 10 cubes.
It has a value of 10.



A unit cube is 1 cube.
It has a value of 1.

Example 2

Write the number shown using digits.



The number shown is **326**.

Model Use money manipulatives to show the number 326.

When we show the value of each place of a number, we are writing the number in **expanded form**. The place value chart below shows the number 362.

| Hundreds | Tens | Ones |
|----------|------|------|
| 3 | 6 | 2 |
| 300 | + 60 | + 2 |

The three is in the hundreds place. It has a value of 3 hundreds or 300.

The six is in the tens place. It has a value of 6 tens or 60.

The two is in the ones place. It has a value of 2 ones or 2.

The expanded form of 362 is **300 + 60 + 2**.

Example 3

Use bills to show \$320. Then write 320 in expanded form.



Expanded form: **300 + 20**

Model Use base-10 blocks to show the number 320.

Lesson Practice

- Nate had seven \$10 bills, three \$100 bills, and two \$1 bills. How much money did Nate have?
- Add: $\$200 + \$5 + \$70$

Use bills to show each number. Then write each number in expanded form.

c. 54

d. 230

e. 403

f. 324

Written Practice

Distributed and Integrated

1. In expanded form, 250 is $200 + 50$. Write 520 in expanded form.
(11)

2. How much money is five \$10 bills and four \$1 bills?
(11)

3. **Analyze** How much money is three \$100 bills, six \$1 bills, and five \$10 bills? What digit is in the hundreds place?
(11)

4. **Multiple Choice** How many minutes is a quarter of an hour?
(5) **A** 15 minutes **B** 30 minutes **C** 45 minutes **D** 60 minutes

5. Write 365 in expanded form.
(11)

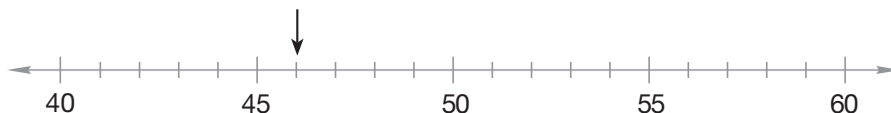
Generalize Write the next four numbers in each sequence. Write the rule for each.

6. 7, 14, 21, 28, _____, _____, _____, _____, ...
(2)

7. 30, 27, 24, _____, _____, _____, _____, ...
(2)

8. Find the sum of 5, 9, and 5.
(10)

9. To what number is the arrow pointing?
(4)



10. The minute hand of a clock points to what number at 8:10?
(3)

Find each answer:

11. $\$200 + \$30 + \$5$
(11)

12. $8 + 2 + 3$
(10)

13. $6 + 4 + 2$
(10)

14. $10 - 6$
(7)

15. Use 2, 7, and 9 to write two addition facts and two subtraction facts.
(8)

Find the missing addend:

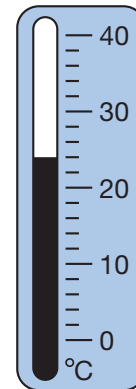
16. $6 + m = 14$
(9)

17. $7 + m = 10$
(9)

18. What temperature is shown on this thermometer?
(4)

19. Write a quarter after six in the morning in digital form.
(5)

20. Use the words “addend” and “sum” to name each number in this addition problem: $3 + 7 = 10$.
(6)



Early Finishers
Real-World Connection

Jin was asked to solve this riddle.

What number am I? I have three digits. There is a 6 in the tens place, a 9 in the ones place, and a 4 in the hundreds place.

Jin said the answer to the riddle was 694. Did Jin give the correct answer? Explain.


• Reading and Writing Numbers Through 999


Power Up


facts

Power Up 12

jump start

 Count up by 2s from 0 to 30.
Count up by 5s from 0 to 60.

 Draw hands on your clock to show “half past 5.” It is morning. Write the time in digital form.

 Mark your thermometer to show 12°F .

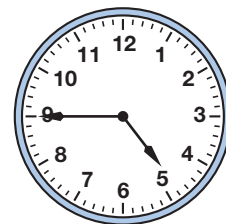
mental math

a. **Time:** It is morning. What time will it be 2 hours after the time shown on this clock?

b. **Number Sense:** $7 + 3 + 4$

c. **Number Sense:** $7 + 7$

d. **Number Sense:** $8 + 10$



problem solving

Beth had 4 coins in her hand. As she counted up to find the total value of the coins, she said, “10¢, 15¢, 16¢, 17¢.” What coins does Beth have in her hand?

New Concept

We can write numbers using words or digits. To write the names of whole numbers through 999 (nine hundred ninety-nine), we need to know number words and how to put them together.

We can use the following number words to write all 1,000 numbers from 0–999:

| | | | | | |
|---|-------|----|-----------|-----|-------------|
| 0 | zero | 10 | ten | 20 | twenty |
| 1 | one | 11 | eleven | 30 | thirty |
| 2 | two | 12 | twelve | 40 | forty |
| 3 | three | 13 | thirteen | 50 | fifty |
| 4 | four | 14 | fourteen | 60 | sixty |
| 5 | five | 15 | fifteen | 70 | seventy |
| 6 | six | 16 | sixteen | 80 | eighty |
| 7 | seven | 17 | seventeen | 90 | ninety |
| 8 | eight | 18 | eighteen | 100 | one hundred |
| 9 | nine | 19 | nineteen | | |

We write a hyphen between two number words that are combined to name a two-digit number. Here are some examples of numbers that are written with a hyphen.

| | |
|-----|--------------------------|
| 24 | twenty-four |
| 37 | thirty-seven |
| 568 | five hundred sixty-eight |

Analyze What is the place value of the number word before the hyphen?

Example 1

Use digits to write two hundred seventy-five.

275

Example 2

Use words to name \$384.

Notice that we do not use the word “and” when we name the number.

Three hundred eighty-four dollars

Example 3

Write the total amount of money shown using words and numbers.



\$231, two hundred thirty-one dollars

Lesson Practice

Use numbers and a dollar sign to write the following.

- a. six hundred twenty-five dollars
- b. two hundred eight dollars

Use words to write each amount.

- c. \$648
- d. 706
- e. Write the amount of money shown with numbers and words.



Written Practice

Distributed and Integrated

1. Look at the number line. The dot represents what number?

(4)



2. **Analyze** In expanded form, 360 is $300 + 60$. Write 640 in expanded form. What digit is in the ones place?

(11)

3. Joan has five \$10 bills and nine \$1 bills. Name that amount using words and using a dollar sign and digits.

(11, 12)

4. **Formulate** How many months of the year are left after the fifth month? How would you write this as a subtraction number sentence?

(1, 7)

Generalize

Write the next four numbers in each sequence. Write the rule for each.

5. 6, 12, 18, 24, _____, _____, _____, _____, ...
(2)

6. 44, 40, 36, _____, _____, _____, _____, ...
(2)

7. Use words to write \$683.
(12)

8. The greatest three-digit counting number is nine hundred ninety-nine. Use digits to write that number.
(12)

Find each answer:

9. $\$600 + \$7 + \$50$
(11)

10. $6 + 8$
(6)

11. $4 + 2 + 7$
(10)

12. $9 + 7$
(6)

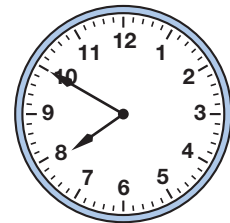
13. $9 - 5$
(7)

14. $8 - 5$
(7)

15. Draw a number line with a tick mark for each number from 1 to 5.
(4)
Draw a dot on the number 2.

16. Find the missing addend: $5 + x = 9$
(9)

17. On Monday morning Larry arrived at school at the time shown on this clock. What time was it?
(3)



18. Use 3, 5, and 8 to write two addition facts and two subtraction facts.
(8)

19. Ben was eighth in line. Brenda was twelfth in line. How many people were between Ben and Brenda?
(1)

20. **Multiple Choice** What is the total number of days in two weeks and two days?
(1, 10)

A 14 days

B 15 days

C 16 days




• Adding Two-Digit Numbers

Power Up

facts

Power Up 13

jump start

-  Count up by 10s from 0 to 100 and back down to 0.
-  Draw hands on your clock to show “quarter past 4.” It is afternoon. Write the time in digital form.
-  Mark your thermometer to show 8°C.

mental math

- a. **Time:** What is the time 4 hours before 9:30 p.m.?
- b. **Patterns:** 60, 50, _____, 30, 20
- c. **Number Sense:** $8 + 6$
- d. **Number Sense:** $\$3 + \10

problem solving

Focus Strategy: Act It Out or Make a Model

Sam has six \$1 bills. He makes two equal groups with the bills. How much money is in each group?

Understand We are asked to find how much money is in each group that Sam made.

Plan We can use money manipulatives to act out the problem.

Solve We make two equal groups of \$1 bills:



\$3

\$3

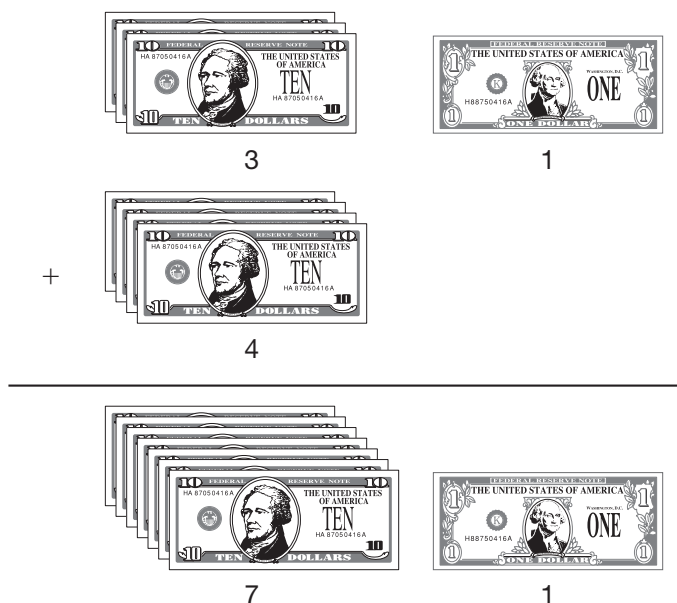
We see that there are three \$1 bills in each group.

Check It makes sense that each group contains \$3, because $\$3 + \$3 = \$6$.

New Concept

We can use money manipulatives to help us add two-digit numbers. We will use \$10 bills to show the digits in the tens place. We will use \$1 bills to show the digits in the ones place.

We can use \$10 bills and \$1 bills to add \$31 to \$40. First, we show \$31. Next, we show \$40. Then, we combine the bills.



The total is 7 tens and 1 one, which is **\$71**.

To add the numbers with pencil and paper, we line up the digits by their place value. Next, we add the digits in the ones place. Then, we add the digits in the tens place.

Add ones. \swarrow
 Add tens. \swarrow

$$\begin{array}{r}
 31 \\
 + 40 \\
 \hline
 71
 \end{array}$$

Discuss Why is it important to keep the digits lined up when we add?



Activity

Regrouping

Materials: \$10 bills and \$1 bills, **Lesson Activity 6**

Malik has five \$10 bills and twelve \$1 bills. How much money does he have?

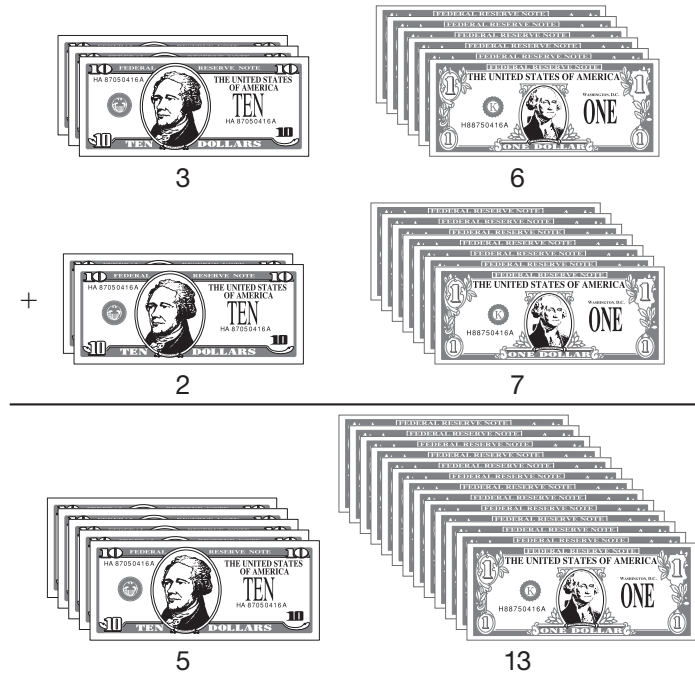
1. Place five \$10 bills in the tens column on the place value chart.
2. Place twelve \$1 bills in the ones column on the place value chart. Use your remaining money manipulatives as the “bank.”
3. We cannot write a 12 in the ones place. We need to trade ten of the \$1 bills for one \$10 bill.
4. When we trade, we call this regrouping.
 - a. Take ten of the \$1 bills to the bank and trade them for one \$10 bill.
 - b. Add the \$10 bill to the tens column.
5. Count the number of tens and the number of ones. How much money does Malik have?

Discuss When do we regroup \$1 bills?

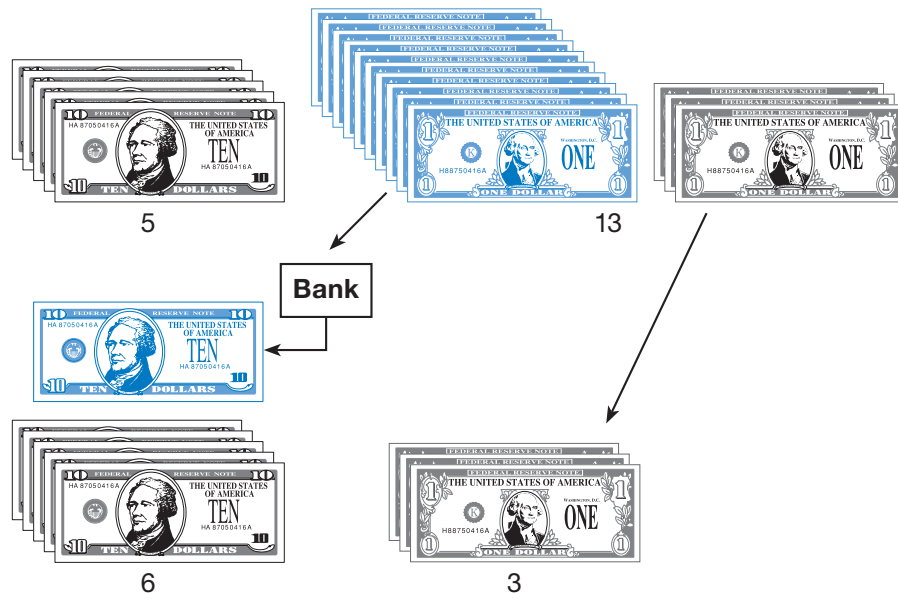
Example

Use money manipulatives to add 36 and 27.

First, we show \$36. Next, we show \$27. Then, we combine the \$10 bills and the \$1 bills.



Since there are thirteen \$1 bills, we regroup ten of the \$1 bills into one \$10 bill.



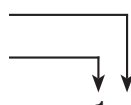

Now we have 6 tens and 3 ones, which is **63**.

To add the numbers with pencil and paper, we line up the digits. Next, we add the ones and get 13.

Add ones.

$$\begin{array}{r}
 36 \\
 + 27 \\
 \hline
 \textcircled{13}
 \end{array}$$

Thirteen ones is the same as 1 ten and 3 ones. We write the 3 in the ones place and add the 1 ten to the other tens. We show this by writing a 1 above the column of tens. Then we add the tens.

Add ones. 
 Add tens. 

$$\begin{array}{r} 1 \\ 36 \\ + 27 \\ \hline 63 \end{array}$$

Lesson Practice

Model Use your money manipulatives to add:

a. $\$60 + \22

b. $10 + 49 + 30$

c. $30 + 20 + 5$

d. $\$20 + \20

e. How much money is four \$10 bills and eleven \$1 bills?

Add:

f. $\$39 + \23

g. $26 + 52$

h. $35 + 16$

Written Practice

Distributed and Integrated

1. **Analyze** Use words to write \$526. What digit is in the tens place?
(11, 12)

2. Add $\$30 + \30 .
(13)

3. Write 256 in expanded form.
(11)

4. How many months are left in the year on the last day of September?
(1, 7)

Generalize Write the next four numbers in each sequence. Write the rule for each.

5. 55, 50, 45, 40, _____, _____, _____, _____, ...
(2)

6. 14, 21, 28, 35, _____, _____, _____, _____, ...
(2)

7. Add \$53 and \$10.

(13)

8. Use digits and a dollar sign to write five hundred twenty-four dollars.

(12)

9. How many minutes are equal to half an hour?

(5)

Find each answer.

10. \$60 + \$20

(13)

11. 15 + 19

(13)

12. \$80 + \$500

(11)

13. \$5 + \$300 + \$40

(11)

14. 12 - 2

(7)

15. 9 - 2

(7)

16. Three pennies plus 7 pennies equals 10 cents. Use 3, 7, and 10 to write two addition facts and two subtraction facts.

(8)

17. How do you write a quarter to eight in the morning in digital form?

(5)

Find the missing addend:

18. $6 + g + 7 = 14$

(9)

19. $45 + m = 55$

(9)

20. **Analyze** Write November 10, 1998, in month/day/year form.

(1)

How many months are before November in the year?

Early Finishers

Real-World Connection

Smithfield Elementary is having a fall festival. The festival begins at 4:00 p.m. and ends at 7:00 p.m. Every fifteen minutes a student's name will be drawn to win a pumpkin. The last student's name will be drawn when the festival ends. How many students will win a pumpkin before the festival is over? You may wish to use a clock to help find the answer.


Subtracting Two-Digit Numbers


Power Up


facts

Power Up 14

jump start

-  Count up by 7s from 0 to 35.
Count up by 100s from 0 to 1000.

-  Draw hands on your clock to show a “quarter of noon.”
Write the time in digital form.

-  Mark your thermometer to show 48°F.

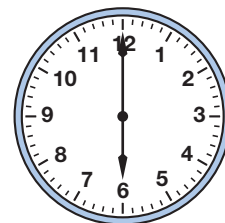
mental math

- a. **Fact Family:** Find the missing number in this fact family:

$$3 + \square = 7 \quad 7 - \square = 3$$

$$\square + 3 = 7 \quad 7 - 3 = \square$$

- b. **Time:** It is morning. What time was it 3 hours before the time shown on this clock?



- c. **Number Sense:** $6 + 10 + 1$
d. **Number Sense:** $6 + 9$

problem solving

Sharon and Letrisa are planning a nature hike. If Sharon brings 4 bottles of water to share, how many bottles can each girl have?

New Concept

In this lesson we will use money manipulatives and pencil and paper to subtract two-digit numbers.

Read this story and see if you can figure out how much money Daniel has.

Daniel had saved \$35. He spent \$12 on a birthday present for his sister. How much money does Daniel have left?

First we show \$35. Then we take away \$12.



We see that Daniel has **\$23** left.

To subtract the numbers with pencil and paper, we line up the digits by their place value. First, we subtract the digits in the ones place. Then we subtract the digits in the tens place.

First subtract ones.
 Then subtract tens.

$$\begin{array}{r}
 35 \\
 - 12 \\
 \hline
 23
 \end{array}$$

Activity

Regrouping for Subtraction

Materials: \$10 bills and \$1 bills, **Lesson Activity 6**

Subtract: $\$75 - \28

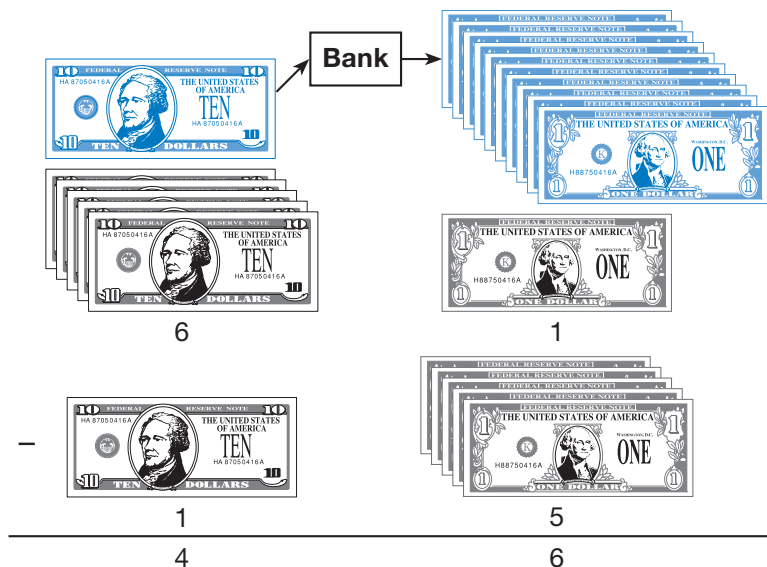
1. Place seven \$10 bills in the tens column on the place value chart.
2. Place five \$1 bills in the ones column on the place value chart.
3. Can we take away eight \$1 bills?
4. What can we do since we can't take away \$8?

5. Take one \$10 bill and trade it for ten \$1 bills. Add the ten \$1 bills to the ones column.
6. Can we take away eight \$1 bills now?
7. How many \$10 bills do we have now?
8. Can we take away two \$10 bills?
9. What is $\$75 - \28 ?

Example

Use money manipulatives to subtract 61 and 15.

First, we regroup \$61 into 5 tens and 11 ones. Next, we take away \$15.



We have 4 tens and 6 ones left over, which is **46**.

To subtract with paper and pencil, we write the first number on top. Next, we rewrite 61 as 5 tens and 11 ones. Then, we subtract the digits in the ones place and the digits in the tens place.

$$\begin{array}{r} 5 \\ \cancel{6}1 \\ - 15 \\ \hline 46 \end{array}$$

Discuss When do we need to regroup to subtract?

Lesson Practice

Subtract. You may use your money manipulatives.

- | | |
|--------------|------------------|
| a. $81 - 30$ | b. $\$97 - \55 |
| c. $14 - 10$ | d. $\$56 - \27 |
| e. $35 - 19$ | f. $\$43 - \35 |

1. Use words to write \$247.

(12)

2. Write 247 in expanded form.

(11)

3. List the months of the year that have exactly 30 days.

(1)

Generalize Write the first four numbers in each sequence:

4. _____, _____, _____, _____, 90, 100, 110, 120, ...

(2)

5. _____, _____, _____, _____, 54, 63, 72, 81, ...

(2)

Add or subtract, as shown.

6. \$50 - \$40

(14)

7. \$50 + \$20

(13)

8. \$46 - \$32

(14)

9. \$37 + \$20

(13)

10. Use digits and a dollar sign to write eight hundred nineteen dollars.

(12)

11. **Connect** A nickel plus a dime is 15 cents. Use the value of the coins to write two addition facts and two subtraction facts.

(8)

Add or subtract, as shown:

12. \$27 + \$28

(13)

13. $7 + 5 + 2$

(10)

14. \$55 - \$27

(14)

15. $5 + 5 + 5$

(10)

16. Write "a quarter after four in the morning" in digital form.

(5)

17. **Multiple Choice** Which problem has a sum of 10?

(6)

A $5 + 10 = 15$ **B** $10 = 6 + 4$ **C** $10 + 3 = 13$ **D** $10 + 10 = 20$

Analyze Find the missing addend:

18. $90 + m + 10 = 110$

(9)

19. $5 + m + 10 = 25$

(9)

20. Subtract: $11 - 4$

(7)


• Rounding to the Nearest Ten and Hundred


Power Up


facts

Power Up 15

jump start

 Count up by 5s from 50 to 100.
Count up by 25s from 0 to 200.

 Draw hands on your clock to show “half past 1.” It is afternoon. Write the time in digital form.

 Mark your thermometer to show 24°F.

mental math

a. **Fact Family:** Find the missing number in this fact family:

$$\square + 6 = 8 \quad 8 - \square = 6$$

$$6 + \square = 8 \quad 8 - 6 = \square$$

b. **Expanded Form:** Write 47 in expanded form.

c. **Number Sense:** $7 + 9$

d. **Money:** Find the value of these coins:



problem solving

Draw a square on your paper. Then draw a straight line across the square from one corner to the opposite corner. What shapes do you see inside the square?

New Concepts

One of the sentences below states exactly how much a radio costs. The other sentence states about how much the radio costs. Can you tell which sentence uses a rounded price?

The radio costs about \$50.

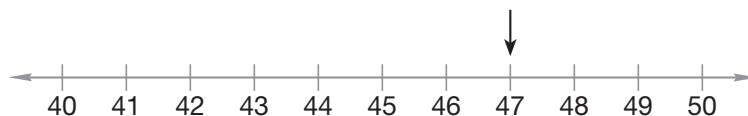
The radio costs \$47.

The first sentence uses a rounded price. We often **round** exact numbers to nearby numbers that are easier to work with and to understand.

In this lesson we will practice rounding amounts of money to the nearest ten dollars and the nearest hundred dollars.

To round an exact number to the nearest ten, we find the closest number that ends in zero. Those are the numbers we say when we count by tens (10, 20, 30, 40, and so on).

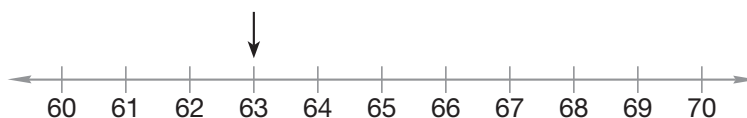
We will use this number line to round 47 to the nearest ten.



We see that 47 is between 40 and 50. Since 47 is closer to 50 than to 40, we round 47 to 50. We say that 47 is “about” 50. When rounding to the nearest ten, we look at the ones place. If the digit is 5 or greater, we round up.

Example 1

The price of the jacket is \$63. What is the price to the nearest ten dollars?



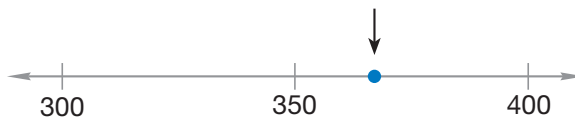
We know that \$63 is between \$60 and \$70. Since \$63 is closer to \$60 than to \$70, we round \$63 down to **\$60**. We can say that \$63 is about \$60.

Now we will learn to round numbers to the nearest hundred. To round an exact number to the nearest hundred, we find the closest number that ends in two zeros. Those are the numbers we say when we count by hundreds (100, 200, 300, 400, and so on). When rounding to the nearest hundred, we look at the tens place. If the digit is 5 or greater, we round up.

Example 2

The camera cost \$367. What is the price to the nearest hundred dollars?

The number 367 is between 300 and 400. Halfway between 300 and 400 is 350. Since 367 comes after 350, it is closer to 400 than it is to 300. We see this on the number line below.



The number line shows why \$367 rounded to the nearest hundred is **\$400**. We can say that \$367 is about \$400.

Example 3

Jasmine bought a computer game that cost \$49 and a new baseball glove that cost \$28. Round the prices to help you find about how much money she spent.

This is a some and some more story. Jasmine spent some money and then spent some more money. We are asked to find “about” how much money she spent.

We begin by writing the addition problem from the story.

$$\begin{array}{r}
 \$49 \quad \text{rounds to} \quad \$50 \\
 + \$28 \quad \text{rounds to} \quad + \$30 \\
 \hline
 \$80
 \end{array}$$

The word “about” in the question tells us that the answer may be a rounded number. To answer the question, we may round the numbers in the story.

Last, we add the rounded numbers.

Since $\$50 + \$30 = \$80$, we know that the total is \$80.

Jasmine spent about \$80.

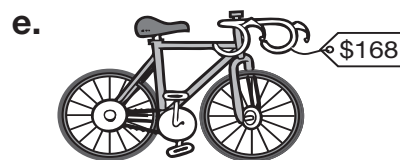
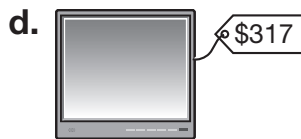
Verify Add $49 + 28$. How can rounding help you decide if your answer is reasonable?

Lesson Practice

Round these prices to the nearest ten dollars:



Round these prices to the nearest hundred dollars:



- g. Write a number sentence for this story after rounding the numbers. Then write a complete sentence to answer the question.

Last weekend Frank made muffins to sell at the carnival. He made 38 muffins on Saturday and 23 muffins on Sunday. About how many muffins did Frank make on Saturday and Sunday? (Hint: To find the answer, first round both numbers to the nearest ten.)

Written Practice

Distributed and Integrated

1. The refrigerator cost \$894. Use words to write \$894.
(12)

2. Write 894 in expanded form.
(11)

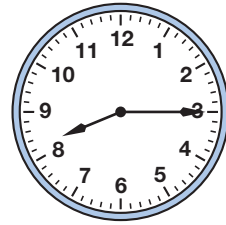
19. **Verify** \$27 rounds to 30. Explain why this is correct.

(2)

20. It is morning. What time is shown on this clock?

(3, 5)

Write the time twice, once with digits and once with words.



Early Finishers

Real-World Connection

Austin walks his neighbor's dog every day for three months to earn money for a new scooter. Would he make more money if he walks his neighbor's dog for the months of February, March, and April, or June, July, and August? Explain your answer.


• Adding Three-Digit Numbers


Power Up

facts

Power Up 16

jump start

 Count up by 10s from 100 to 200.
Count up by 100s from 0 to 1000.

 Draw hands on your clock to show “quarter to 8.” It is morning. Write the time in digital form.

 Mark your thermometer to show 18°C.

mental math

- Calendar:** How many days are in 3 weeks?
- Number Sense:** $13 - 10$
- Time:** What is the time 2 hours after midnight?
- Number Sense:** $9 + 8$

problem solving

Draw the next two shapes in this pattern:

○, ○, △, △, ○, ○, △, △, ○, _____, _____, ...

New Concept



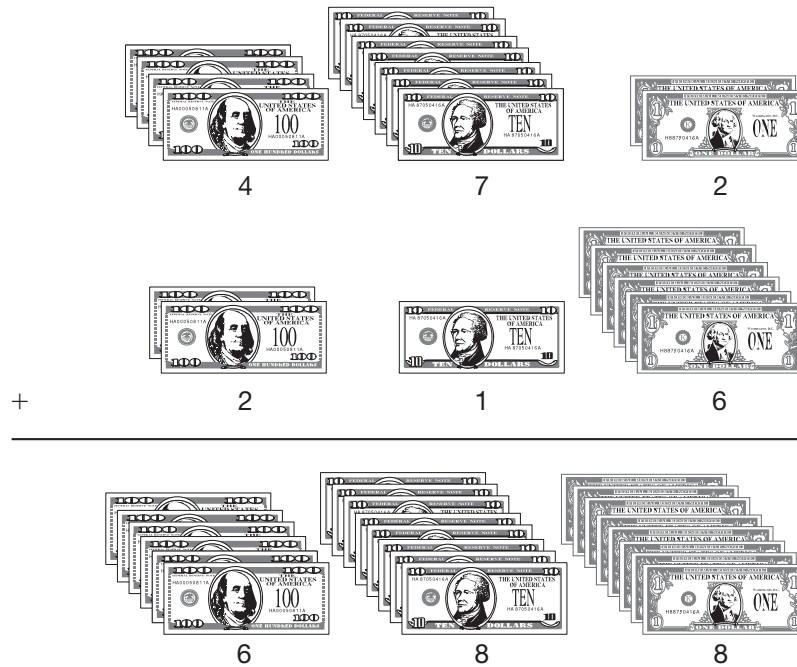
Visit www.SaxonMath.com/Int3Activities for a calculator activity.

In Lesson 13 we used money manipulatives to add two-digit numbers. In this lesson we will use money manipulatives to help us add three-digit numbers. We will use \$100 bills to show digits in the hundreds place, \$10 bills to show digits in the tens place, and \$1 bills to show digits in the ones place.

Example 1

Use money manipulatives to add \$472 and \$216.

We show \$472 and \$216. Then we combine the \$1 bills, \$10 bills, and \$100 bills.



The sum is 6 hundreds, 8 tens and 8 ones. That equals **\$688**.

We can also use pencil and paper to calculate the sum. First we add the digits in the ones place. Then we add the digits in the tens place. Last we add the digits in the hundreds place.

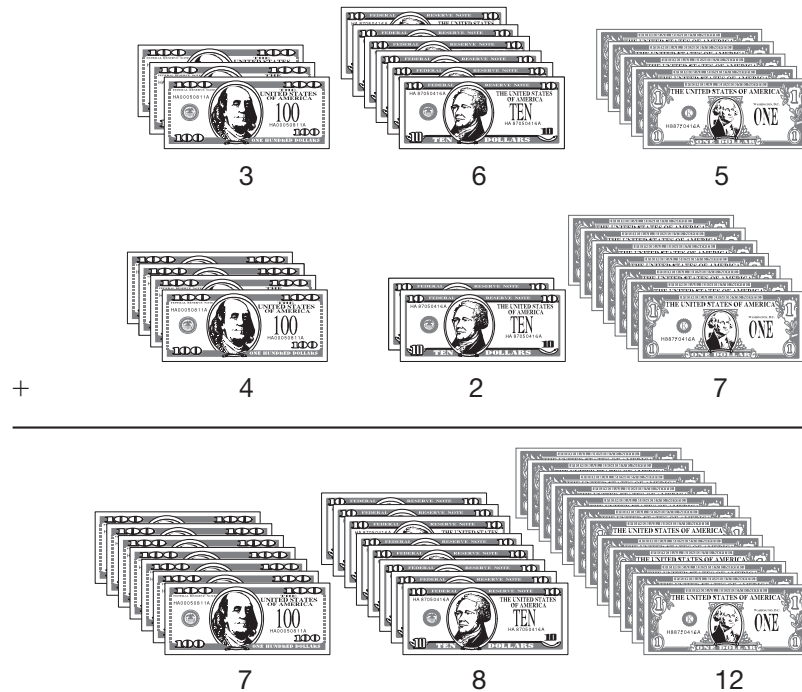
Add ones ————
Add tens ————
Add hundreds ————

$$\begin{array}{r} \$472 \\ + \$216 \\ \hline \$688 \end{array}$$

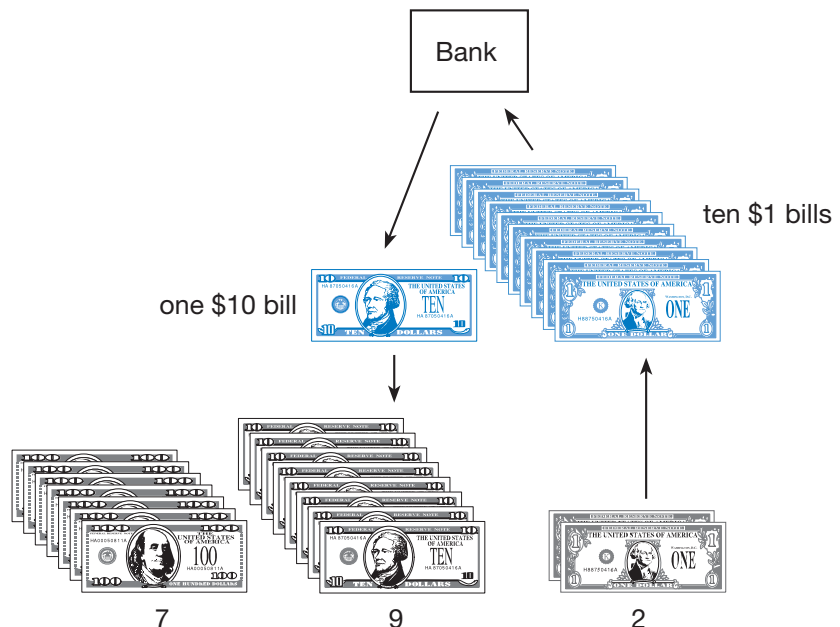
Example 2

Use money manipulatives to add \$365 and \$427.

We show \$365 and \$427. Then we combine the \$1 bills, the \$10 bills, and the \$100 bills.



Since there are twelve \$1 bills, we can regroup ten of the \$1 bills into one \$10 bill. Now we have 7 hundreds, 9 tens, and 2 ones. That equals **\$792**.



We can also use pencil and paper to find the sum. First we add the digits in the ones place and get 12. Twelve ones is the same as 2 ones and 1 ten. We write 2 in the ones place and add the 1 ten to the other tens. Then we add the digits in the tens place and get 9. Last we add the digits in the hundreds place and get 7.

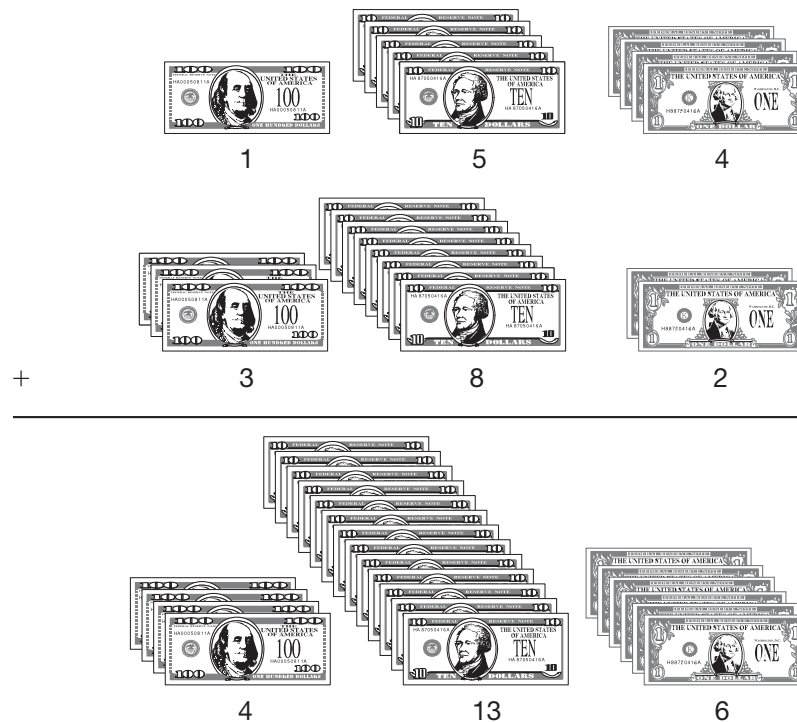
Add ones
Add tens
Add hundreds

$$\begin{array}{r}
 365 \\
 + \$ 427 \\
 \hline
 \$ 792
 \end{array}$$

Example 3

Use money manipulatives to add \$154 and \$382.

We show \$154 and \$382. Then we combine the \$1 bills, the \$10 bills, and the \$100 bills.



Add or subtract, as shown:

12. $\$16 - \5
(14)

13. $58 + 10$
(13)

14. $8 + 8 + 8$
(10)

15. $\$25 - \17
(14)

16. $127 + 631$
(16)

17. $\$58 - \30
(14)

Find the missing addend:

18. $35 + m = 55$
(9)

19. $100 = \square + 30$
(9)

20. Brock wrote the addition fact $8 + 2 = 10$. Use the numbers 8, 2, and 10 to write one more addition fact and two subtraction facts.

Early Finishers
Real-World Connection

Fernanda's school was having a carnival to raise money for a new playground. Fernanda was in charge of collecting money at the ticket booth. When the carnival was over she had collected twelve \$10 bills and seven \$1 bills. Name the amount that Fernanda collected twice, once using words and once using a dollar sign and digits.

• Comparing and Ordering, Part 1

Power Up

facts

Power Up Worksheet 17

jump start



Count up by 2s from 0 to 30.
Count up by 5s from 0 to 60.



Draw hands on your clock to show “quarter after 8.”
It is evening. Write the time in digital form.



Mark your thermometer to show the freezing point of water.

mental math

a. **Number Sense:** $13 - 9$

b. **Number Sense:** $16 - 9$

c. **Money:** $\$3 + \9

d. **Money:** Find the value of these coins:



problem solving

Use your money manipulatives to help you act out this problem:

Darrin had \$25. He went to the carnival and spent some of the money. After the carnival, Darrin had \$10. How much money did Darrin spend at the carnival?

New Concept

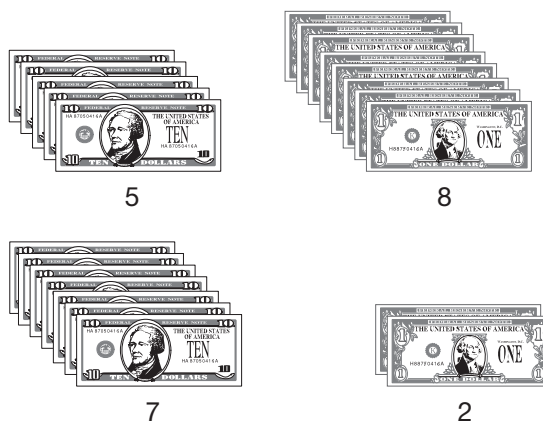
Sometimes we need to compare the costs of different items to find the lowest price. In this lesson we will compare amounts of money and arrange amounts of money in order.

We can use **comparison symbols** to show how we compare money. If two amounts are equal, we write an equal sign between the two numbers. If the amounts are not equal, we write $<$ or $>$ so that the small end points to the number that is less. We read the symbol $>$ as “**greater than**.” We read the symbol $<$ as “**less than**.”

Example 1

Samantha saved her birthday money to buy new skates. She found skates she liked at The Super Store for \$58. She found the same skates at Bob’s Sporting Goods for \$72. Write the two prices with a comparison symbol. Where should Samantha buy her skates?

Samantha wants to buy the skates that cost less. We can use money to compare the two prices.



First we will look at the \$10 bills. There are five \$10 bills in \$58 and seven \$10 bills in \$72. Since five is less than seven, we know that \$58 is less than \$72. We write $\$58 < \72 .

We can also use a number line to compare 58 and 72. Remember that a number line shows numbers on a line in counting order.



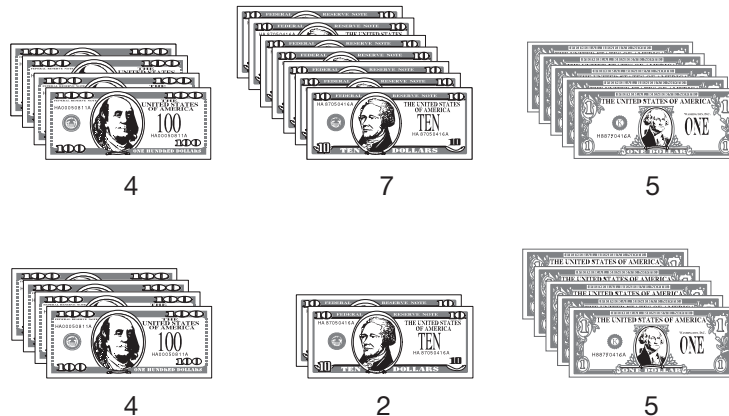
We see on the number line that 58 comes before 72. We say that 58 is less than 72. We write $58 < 72$. Since \$58 is less than \$72, Samantha should buy her skates at **The Super Store**.

Example 2

Mr. Jung is shopping for an airline ticket. A ticket from Blue Skies Airline costs \$475. A ticket from World Wide Airlines costs \$425. Which ticket costs more? Write $<$ or $>$ in the circle to complete the comparison.

$$\$475 \bigcirc \$425$$

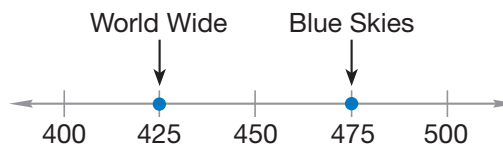
We will use money to compare \$475 and \$425.



First we will look at the \$100 bills. There are four \$100 bills in \$475 and four \$100 bills in \$425. Since the \$100 bills in each number are the same, we look next at the \$10 bills. There are seven \$10 bills in \$475 and two \$10 bills in \$425. We know that 7 is more than 2, so \$475 is greater than \$425.

$$\$475 > \$425$$

We can also use the number line below to compare 475 and 425.












We see that 475 comes after (is farther right than) 425 on the number line. So 475 is greater than 425.

$$\$475 > \$425$$

Example 3

Columbus Elementary School third graders sold magazines to raise money for their school. The three students who raised the most money won prizes. Li raised \$261. Bud raised \$172. Ashley raised \$285. Show the total raised by each of these students in order from least to greatest.

We will use money manipulatives to find the order of these three amounts. Show \$261, \$172, and \$285 on your desk using money from the money kit.

| | | | |
|--------|--|--|--|
| Li |  2 |  6 |  1 |
| Bud |  1 |  7 |  2 |
| Ashley |  2 |  8 |  5 |

We will look at the \$100 bills first. Since one \$100 bill is less than two \$100 bills, we know that \$172 is the least number. Now we will compare \$261 and \$285. In \$261 and \$285 the number of \$100 bills is equal, so we look at the \$10 bills. Since six \$10 bills are less than eight \$10 bills, \$261 is less than \$285.

The total amount of money raised by each student in order from least to greatest is **\$172, \$261, \$285**.

Analyze Which has the greater value, two \$10 bills or four \$1 bills?

Lesson Practice

- Choose $<$ or $>$ to compare \$29 and \$57.
- Which costs less, a basketball for \$15 or a baseball bat for \$30?
- Choose $<$ or $>$ to compare \$193 and \$163.
- Write these numbers in order from least to greatest:
273, 615, 480

Written Practice

Distributed and Integrated

- Add \$524 and \$112.
(16)
- Which is greater, \$432 or \$423?
(17)
- Use words to write \$405.
(12)

4. **Analyze** Round three hundred forty-seven dollars to the nearest hundred.
(12, 15)

5. Add \$119 and \$119.
(16)

Conclude What are the next four numbers in each sequence?

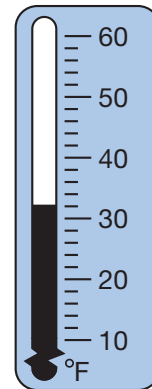
6. 6, 12, 18, 24, _____, _____, _____, _____, ...
(2)

7. 60, 70, 80, 90, _____, _____, _____, _____, ...
(2)

8. Round these numbers to the nearest ten:
(15) a. 92 b. 68

9. Round these amounts to the nearest hundred:
(15) a. \$438 b. \$398

10. **Analyze** Gia checked the outside thermometer while getting ready for school. Should she wear a T-shirt or a sweater? Explain your choice.
(4)



Add or subtract, as shown. Use manipulatives for problem 11:

11. $\$248 + \300
(16)

12. $\$36 - \12
(14)

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

14. $36 - 34$
(14)

15. $52 + 28$
(13)

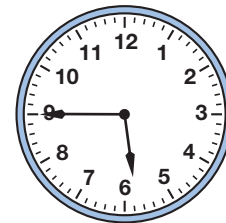
16. $\$26 - \23
(14)

Find the missing addend:

17. $25 + m = 100$
(9)

18. $\square + 36 = 66$
(9)

19. It is almost time for dinner. What time is shown on this clock? Write the time twice, once using digits and once using words.
(3, 5)



20. **Multiple Choice** Altogether, how many days are in December and January?
(1, 13)

A 60 days

B 61 days

C 62 days

Some and Some More Stories, Part 1

Power Up

facts

Power Up 18

jump start



Count up by 100s from 0 to 1000 and back.



Draw hands on your clock to show “half past midnight.” Write the time in digital form.



Mark your thermometer to show 51°F.

mental math

a. **Expanded Form:** $100 + 20 + 3$

b. **Patterns:** 20, 15, _____, 5, 0

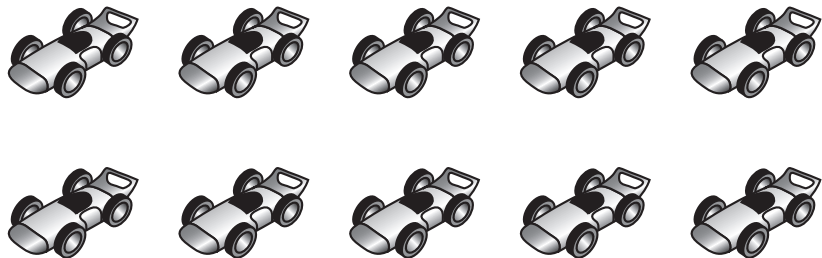
c. **Number Sense:** $14 - 9$

d. **Measurement:** 6 inches + 6 inches

problem solving

Focus Strategy: Guess and Check

Tyler and Chad have 10 toy cars altogether.



Tyler has 2 more cars than Chad. How many toy cars does each boy have?

Understand

We are told the total number of toy cars. We are asked to find how many toy cars each boy has.

Plan

We can *guess* an answer and then *check* our guess.

Solve We look for two numbers whose sum is 10 and whose difference is 2. We can guess 7 cars for Tyler and 5 cars for Chad. The total is 12 cars, which is too high. We can guess 6 cars for Tyler and 4 cars for Chad. The total is 10 cars.

Check There are 10 cars altogether, and $6 + 4 = 10$. Six is 2 more than 4 ($6 - 4 = 2$). Our guess of 6 cars for Tyler and 4 for Chad is correct.

New Concept

Many word problems tell a story. If we understand what is happening in the story, it is easier to solve the problem. Look at this story.

John had \$5. Then he earned \$7. Now John has \$12.

Notice what is happening in this story. John had some money. Then he earned some more money. We call a story like this a **some and some more** story.

A some and some more story is an addition story.

Some + some more = total

$$\$5 + \$7 = \$12$$

We can also write the information this way.

| | | |
|-----------------|--------|-----------------|
| Some | —————> | \$5 |
| + Some more | —————> | + \$7 |
| <u> </u> | | <u> </u> |
| Total | —————> | 12 |

Generalize Why is a some and some more story an addition story?

Example 1

Write a number sentence for this story.

*Nolan threw 25 baseballs. Later, he threw 62 baseballs.
Altogether, Nolan threw 87 baseballs.*

$$25 \text{ baseballs} + 62 \text{ baseballs} = 87 \text{ baseballs}$$

Example 2

Here is a some and some more story with a missing number. Find the missing number. Then answer the question.

***Mickey saw 15 rabbits. Then he saw 7 more rabbits.
How many rabbits did he see in all?***

Mickey saw some, and then he saw some more.

Some + some more = total

15 rabbits + 7 rabbits = rabbits

Since $15 + 7 = 22$, we know the total is 22 rabbits. We answer the question with a complete sentence. **Mickey saw 22 rabbits in all.**

Example 3

Make up a some and some more story for this number sentence.

$$\$5 + \$3 = \$8$$

Write a story and tell it to a classmate or to your teacher. One story for this number sentence is:

Tasha had \$5. Her mom gave her \$3. Then she had \$8.

Lesson Practice

- a. Write a number sentence for the following story.

Gus had seven dollars. He received five dollars more in a birthday card. Then Gus had twelve dollars.

- b. The following story has a missing number. Write a number sentence for this story. Then write a complete sentence to answer the question.

Diane ran 5 laps in the morning. She ran 8 laps in the afternoon. How many laps did she run in all?

- c. Write a number sentence for this story. Then write a complete sentence to answer the question.

Dan had some play money in his pockets. He had \$50 in his left pocket and \$25 in his right pocket. How much play money did Dan have in both pockets?

- d. Make a some and some more story with a question for this number sentence.

$$7 \text{ birds} + 8 \text{ birds} = ? \text{ birds}$$

Written Practice

Distributed and Integrated

1. Write a number sentence for this some and some more story.
(18) Then write a complete sentence to answer the question.

Sergio had \$12. He earned \$5 more. Then how much money did Sergio have?

2. **Analyze** Round seven hundred sixty-seven to the nearest hundred.
(12, 15)

3. **Formulate** Write a number sentence for this story. Then write a complete sentence to answer the question.
(18)

Nate had \$37. He earned \$20 more. Then how much money did Nate have?

4. Use words to write \$919.
(12)

5. Write 919 in expanded form.
(11)

6. Find the sum of \$167 and \$528.
(16)

Connect What are the four missing numbers in each sequence?

7. 4, 8, 12, _____, _____, _____, _____, 32, ...
(2)

8. 9, 18, _____, _____, _____, _____, 63, 72, ...
(2)

9. Is \$248 closer to \$200 or \$300?
(15)

10. **Analyze** Marisol's music class starts at a quarter to one in the afternoon. At a quarter to one, the minute hand is pointing to what number?
(3, 5)

Add or subtract, as shown:

11. $\$65 - \24
(14)

12. $56 - 54$
(14)

13. $38 - 15$
(14)

14. $6 + 6 + 6$
(10)

15. $\$56 - \32
(14)

16. $\$100 + \$60 + \$4$
(11)

Find the missing addend:

17. $52 = m + 32$
(9)

18. $\square + 10 = 100$
(9)

19. Show how to write a quarter to nine o'clock in the morning in digital form.
(5)

20. **Multiple Choice** What is the total number of minutes in a quarter of an hour plus half of an hour?
(5)

A 15

B 30

C 45

D 60

Early Finishers
Real-World Connection

Susan went on a field trip to an alligator farm in Jacksonville. A worker told the children that an alligator clutch on the farm had hatched 70 alligators. Twelve babies were male. How many babies were female?


• Subtracting Three-Digit Numbers, Part 1


Power Up


facts

Power Up 19

jump start

-  Count up by 10s from 100 to 200.
Count up by 25s from 0 to 200.

-  Draw hands on your clock to show “five o’clock.” It is afternoon. Write the time in digital form.

-  Mark your thermometer to show normal body temperature.

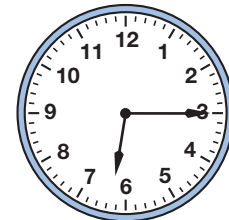
mental math

- a. **Fact Family:** Find the missing number in this fact family:

$$\square + 9 = 11 \quad 11 - 9 = \square$$

$$9 + \square = 11 \quad 11 - \square = 9$$

- b. **Time:** It is evening. What time will it be 4 hours after the time shown on this clock?

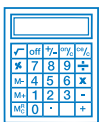


- c. **Number Sense:** $2 + 10 + 1$
d. **Number Sense:** $3 + 11$

problem solving

Sylvia has 3 coins. The total value is 12¢. What coins does Sylvia have?

New Concept



Visit www.SaxonMath.com/Int3Activities for a calculator activity.

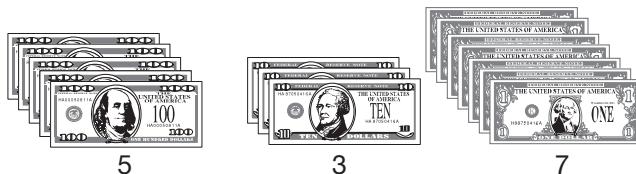
In this lesson we will use money manipulatives to help us subtract three-digit numbers. We will also subtract using pencil and paper.

Predict What bills should we use to help us subtract three-digit numbers?

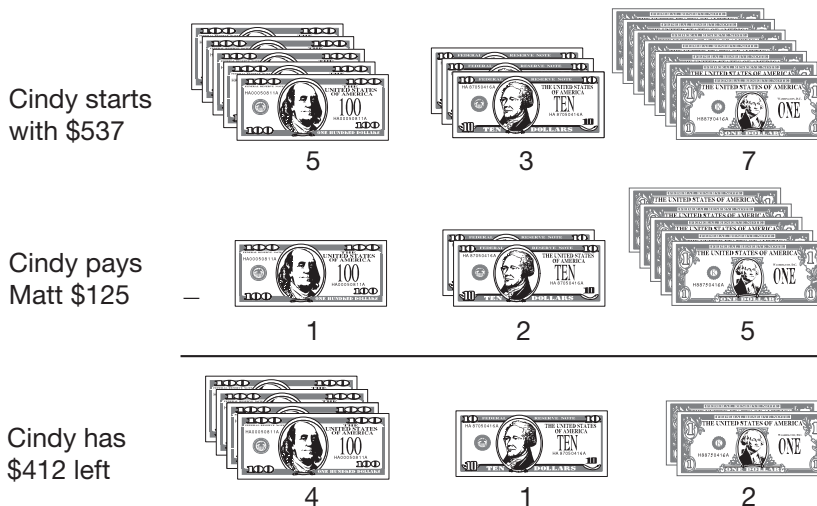
Example 1

Matt and Cindy were playing a board game. Cindy had \$537. When she landed on Matt's property, she had to pay \$125. How much money did Cindy have left?

Cindy had \$537. To show this we put on our desk five \$100 bills, three \$10 bills, and seven \$1 bills.



She had to pay Matt \$125. We show this by taking from the desk one \$100 bill, two \$10 bills, and five \$1 bills. Then we count how much money Cindy has left.



After paying Matt, Cindy had four \$100 bills, one \$10 bill, and two \$1 bills. She had **\$412**.

We can also subtract with pencil and paper. First we subtract the digits in the ones place. Next we subtract the digits in the tens place. Last we subtract the digits in the hundreds place.

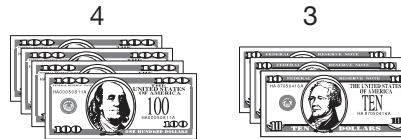
$$\begin{array}{r} \text{Start} \\ \downarrow \\ \$537 \\ - \$125 \\ \hline \$412 \end{array}$$

Sometimes we need to trade one \$10 bill for ten \$1 bills or one \$100 bill for ten \$10 bills when subtracting. Read this example to see how Matt used the bank to regroup his money.

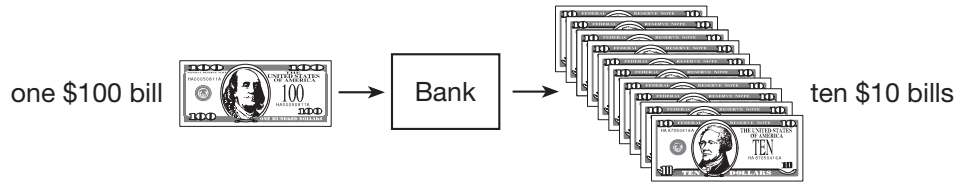
Example 2

Matt has \$430. If he pays Cindy \$70 rent, how much money will Matt have left?

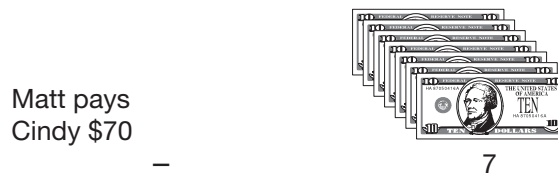
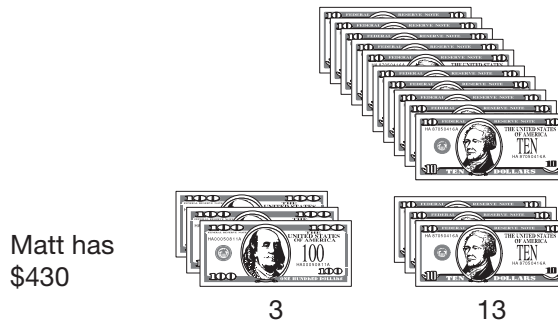
Matt's money equals four \$100 bills and three \$10 bills.



He needs to pay \$70, which is seven \$10 bills. He does not have enough \$10 bills, so he can trade one \$100 bill for ten \$10 bills.



After regrouping, Matt has three \$100 bills and thirteen \$10 bills. Now he can pay Cindy \$70 with seven \$10 bills.



After paying Cindy, Matt will have three \$100 bills and six \$10 bills, which is **\$360**.

We can also subtract with pencil and paper. First we subtract the digits in the ones place. We know that 0 ones from 0 ones is zero. Next we look at the digits in the tens place.

$$\begin{array}{r} \text{Start} \\ \downarrow \\ \$430 \\ - \$70 \\ \hline 0 \end{array}$$

We cannot subtract 7 from 3, 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 4 and writing a 3 above it. We now have 3 hundreds and 13 tens. We show the 13 tens by placing a small 1 in front of the 3.

$$\begin{array}{r} 3 \\ 1 \\ \$\cancel{4}30 \\ - \$70 \\ \hline 0 \end{array}$$

Now we are ready to subtract.

$$\begin{array}{r} 3 \\ 1 \\ \$\cancel{4}30 \\ - \$70 \\ \hline \$360 \end{array}$$

Example 3

Cindy had \$472. She had to pay Matt \$238 for a new property. How much money did Cindy have left?

We will subtract using pencil and paper. First we look at the digits in the ones place. We cannot subtract 8 ones from 2 ones so we trade one of the tens for 10 ones. Now we have 6 tens and 12 ones. We are ready to subtract.

$$\begin{array}{r} 6 \\ 1 \\ \$4\cancel{7}2 \\ - \$238 \\ \hline \$234 \end{array}$$

Lesson Practice

Act out the stories in problems **a** and **b** with money manipulatives. Then show the subtraction with pencil and paper.

- Cindy had \$843. She landed on a property that had a house. She had to pay Matt \$125. How much money did she have left?
- Matt had \$720. He had to pay Cindy \$250. How much money did he have left?

Use pencil and paper to subtract.

c. $\$63 - \47

d. $\$354 - \182

Written Practice

Distributed and Integrated

1. Find the sum of \$321 and \$123.

(16)

Formulate Write number sentences for the stories in problems 2 and

3. Then write a complete sentence to answer each question.

2. Nellie has \$25. Julie has \$20. How much money do Nellie and

(18)

Julie have together?

3. Yolanda had \$450. She earned \$120 more from babysitting. Then

(16, 18)

how much money did Yolanda have? Use manipulatives to help you find the answer.

4. Is \$67 closer to \$60 or \$70? Is \$670 closer to \$600 or \$700?

(15)

5. Write 330 in expanded form.

(11)

6. Use manipulatives to find the difference of \$567 and \$232.

(19)

What are the next four numbers in each sequence?

7. 14, 21, 28, 35, _____, _____, _____, _____, ...

(2)

8. 25, 50, 75, 100, _____, _____, _____, _____, ...

(2)

9. Round \$91 to the nearest ten. Round \$910 to the nearest

(15)

hundred.

10. **Conclude** Terrance has a doctor's appointment at a quarter

(5)

past nine in the morning. He arrived at the doctor's office at 9:30 a.m. Was he on time for his appointment? Explain your answer.

Add or subtract, as shown:

11. $\$56 + \43
(13)

12. $\$59 - \35
(14)

13. $6 + 8 + 10$
(10)

14. $\$14 - \4
(14)

15. $5 + 7 + 3$
(10)

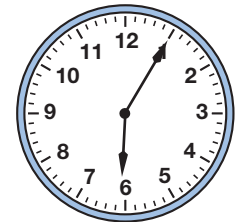
16. $\$35 - \20
(14)

Find the missing addend:

17. **Connect** $10 = m + 6 + 4$
(9, 10)

18. $\square + 36 = 40$
(9)

19. Martin's clock looked like the clock at right when he woke up in the morning. What time was it?
(3)



20. **Multiple Choice** Which is *not* a way to say 9:45 a.m.?
(3, 5)

- A a quarter after nine in the morning
- B nine forty-five in the morning
- C a quarter of ten a.m.
- D a quarter to ten in the morning

Early Finishers

Real-World Connection

Preston took a tour of an art museum in Dallas. For every exhibit he viewed, Preston received a sticker to put in his museum guide. After the first hour Preston had 4 stickers. By the end of the tour Preston had 19 stickers in his museum guide. How many stickers did Preston get after the first hour of the museum tour?



• Some Went Away Stories, Part 1

Power Up

facts

Power Up 20

jump start

-  Count up by 2s from 0 to 30 and then back down to 0.
-  Draw hands on your clock to show “ten o’clock.” It is night. Write the time in digital form.



Mark your thermometer to show 15°C.

mental math

- a. **Number Sense:** $4 + 11$
- b. **Number Sense:** $8 + 8$
- c. **Money:** $\$7 + \10
- d. **Money:** Find the value of these coins:



problem solving

Focus Strategy: Write a Number Sentence

Tim started with \$6. Then he earned some money doing chores. After getting paid for the chores, Tim had \$16. How much money did Tim earn?

Understand We are given a beginning amount and a total amount. We are asked to find how much money Tim earned.

Plan We can *write a number sentence*.

Solve We can write this number sentence: $\$6 + \square = \16 .

Now we need to find the missing number. We know that $6 + 10 = 16$, so **Tim earned \$10**.

Check Our answer makes sense, because $\$6 + \$10 = \$16$. This is the total Tim had after getting paid.

New Concept

Word problems often tell a story. We carefully read the story to understand what is happening. We have practiced some and some more stories. Here is another kind of story.

John had \$12. He spent \$5 for a book. Then he had \$7.

Notice what is happening in this story. John had some money. Then some of John's money "went away" because he spent it. This is a **some went away** story.

A some went away story is a subtraction story.

Some – some went away = what is left

$$\$12 - \$5 = \$7$$

We can also write the information this way.

| | |
|------------------|--------|
| Some | \$12 |
| – Some went away | – \$ 5 |
| <hr/> | <hr/> |
| What is left | \$ 7 |

Generalize What is another name for the number that tells "what is left"?

Example

Rebecca had \$65. Then she spent \$13. How much money did Rebecca have left?

At the beginning of the story, Rebecca had \$65. Then \$13 "went away." We are asked how much money she had left. We write a number sentence for this story.

$$\$65 - \$13 = \square$$

Since $\$65 - \13 is \$52, we know the difference is \$52. We answer the question with a complete sentence.

Rebecca had \$52 left.

Formulate Show another way to write the information in this story.

Lesson Practice

Write a number sentence for each story. You may use your money manipulatives to help you find the answer. Answer each question with a complete sentence.

- a. Donald had \$26. He spent \$12 on a new game. How much money did he have left?
- b. Sarah had \$43. Then she bought a new coat for \$36. How much money did Sarah have after she bought the coat?
- c. Jim had \$40. He bought a shirt that cost \$25. How much change did he get?

Written Practice

Distributed and Integrated

1. List the first three months of the year and the number of days in each of those months in a common year.
(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. Rita paid him \$140 more. Then how much money did Mike have?
(16, 18)
3. Jenny had \$36. She spent \$12 for a class party. Then how much did Jenny have?
(20)
4. Use words to write \$647.
(12)
5. Write 647 in expanded form.
(11)
6. Write the amount of money shown using numbers.
(12)



Generalize

What are the next four numbers in each sequence? Write the rule for each.

7. 18, 27, 36, 45, _____, _____, _____, _____, ...
(2)

8. 18, 24, 30, 36, _____, _____, _____, _____, ...
(2)

9. Use money to help you with this subtraction:
(19)

$$\$340 - \$126$$

10. Use 7, 8, and 15 to write two addition facts and two subtraction facts.
(8)

Add or subtract, as shown:

11. $\$57 - \52
(14)

12. $25 + 73$
(13)

13. $340 - 140$
(19)

14. $\$279 + \119
(16)

15. $5 + 7 + 4 + 10$
(10)

16. $\$34 + \51
(13)

17. Alan, Kalia, and Alita went on a fishing trip. Alan caught 3 fish.
(10) Kalia caught 5 fish. Alita caught 2 fish. How many fish did they catch in all?

Find the missing addend:

18. $8 + m = 15$
(9)

19. $56 + \square = 86$
(9)

20. **Justify** Gina bought a pair of shoes for \$27 and a pair of socks for \$6. She gave the cashier three \$10 bills and three \$3 bills.
(11, 17, 18) Did she give the cashier the right amount of money? How do you know?



DeMario is saving his money for a new telescope so he can learn more about space. The telescope costs \$76. Demario had saved \$23 and earned \$14 more doing chores around the neighborhood. How much more does DeMario need to buy the telescope? You may wish to use money manipulatives to help you find the answer.

Focus on

• Working with Money

In this investigation you will work with a partner to practice **exchanging** money. You will record the results of the exchange on an activity sheet.

Getting Started

Sit with your partner. You and your partner should each take three \$100 bills, four \$10 bills and five \$1 bills from the bank. Now you each have \$345. Leave the rest of the money in the bank so both partners can reach.

Each money exchange needs a Student A and a Student B. Decide with your partner who will be A and who will be B. You will keep this letter for the whole activity.



Activity

Money Exchanges

Materials: **Lesson Activity 10**

Record each exchange on your worksheet.

First Exchange

Be sure each partner begins with \$345.

- Student A gives Student B \$32.
- Count how much money each student has. Record your answer on your worksheet. Begin the second exchange.

Second Exchange

- Student B gives Student A \$43.
- Count how much money each student has. Record your answer on your worksheet. Begin the third exchange.

Third Exchange

- Student A gives Student B \$128. Student A needs eight \$1 bills but only has six.

Go to the bank. Student A trades one \$10 bill for ten \$1 bills.

Now Student A can give \$128 to Student B.

- After the exchange, B has twelve \$1 bills.

Go to the bank. Student B trades ten \$1 bills for one \$10 bill.

- Count how much money each student has. Record your answer on your worksheet. Include the regrouping. Begin the fourth exchange.

Fourth Exchange

- Student B gives Student A \$114. Student B needs four \$1 bills but only has two.

Go to the bank. Student B trades one \$10 bill for ten \$1 bills.

Now Student B can give \$114 to Student A.

- After the exchange, Student A has twelve \$1 bills.

Go to the bank. Student A trades ten \$1 bills for one \$10 bill.

- Count how much money each student has. Record your answer on your worksheet. Include the regrouping. Begin the fifth exchange.

Fifth Exchange

- Student A gives Student B \$161. Student A needs six \$10 bills but only has four.

Go to the bank. Student A trades one \$100 bill for ten \$10 bills.

Now Student A can give \$161 to Student B.

- After the exchange, Student B has ten \$10 bills.

Go to the bank. Student B trades ten \$10 bills for one \$100 bill.

- Count how much money each student has. Record your answer on your worksheet. Include the regrouping. Begin the sixth exchange.

Sixth Exchange

- Student B gives Student A \$164. Student B needs six \$10 bills but has none.

Go to the bank. Student B trades one \$100 bill for ten \$10 bills.

Now Student B can give \$164 to Student A.

- After the exchange, Student A has fourteen \$10 bills.

Go to the bank. Student A trades ten \$10 bills for one \$100 bill.

- Count how much money each student has. Record your answer on your worksheet. Include the regrouping.

What do you notice about the final sum and difference?

partners have the amount of money they started with.