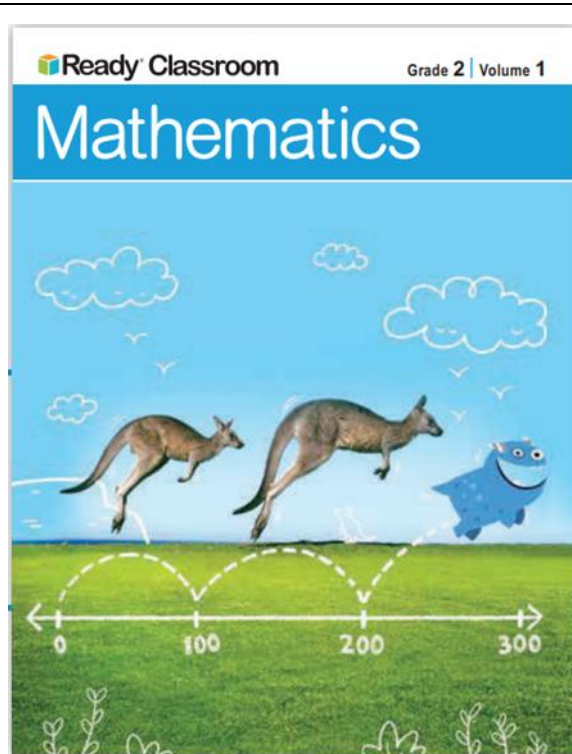# Second Grade

Additional Activities

Dear Families and Caregivers,

This packet of materials comes from your child's math program, Ready Classroom Mathematics (matching their RED book (see right)).

Please read the next page for additional help on how to use this packet with work in your child's book.

Thank you for all the support you are providing to your child to continue their learning!

TACOMA
PUBLIC SCHOOLS
EVERY STUDENT. EVERY DAY.

Your child's workbook is set up by:

- **Unit:** Learning over the course of several <u>weeks</u>
- **Lesson:** Usually to happen over 3-5 days (often found on the top and bottom of each page)
- **Session:** Learning for ONE day (often found at the top of each page

Use after Lesson , Session 3

Explore Using Mental Math Strategies for Addition

SESSION 1 ● ○ ○ ○ ○

In this lesson, you will use different strategies to add numbers in your head. Use what you know to try to solve the problem below.

Learning Target
- Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
SMP 1, 2, 3, 4, 5, 6, 7, 8

There are 8 children on the playground. Then 4 more children join them. How many children in all are on the playground?

TRY IT

🚐 Math Toolkit
- counters
- 10-frames

DISCUSS IT
Ask your partner: How did you get started?
Tell your partner: At first, I thought . . .

©Curriculum Associates, LLC Copying is not permitted.   Lesson 1 Mental Math Strategies for Addition   **5**

For each page of this packet, please see the lower corner to know which pages in the workbook the pages go along. Any pages titled

- **Fluency and Skills Practice** are noted by **Session**
- **Enrichment Activity** are best used at the end of the Lesson

Fluency and Skills Practice

Adding by Counting On and Making a Ten   Name:_____

Add.

1 8 + 2 = _____   2 8 + 3 = _____

3 6 + 4 = _____   4 6 + 8 = _____

5 7 + 3 = _____   6 7 + 5 = _____

7 9 + 1 = _____   8 9 + 6 = _____

9 5 + 5 = _____   10 5 + 8 = _____

11 9 + 2 = _____   12 2 + 9 = _____

13 8 + 4 = _____   14 4 + 8 = _____

15 6 + 9 = _____   16 6 + 7 = _____

17 Which strategy did you use to solve problem 11? Explain.

Use after Lesson 1, Session 3
©Curriculum Associates, LLC.   Copying is permitted for classroom use.

Enrichment Activity   Name_____

Can You Prove It?

Your Challenge
You have learned the doubles plus 1 strategy. What happens when 1 is added to other addends?

6   7   8   9   10   11   12

1. Choose two numbers from above to add together and find the sum. Show your work on the **Recording Sheet**.

2. Keep one addend the same and change the other addend to be 1 more. Find the new sum. Show your work on the **Recording Sheet**.

3. Look at both equations and describe on the **Recording Sheet** what has changed.

4–6. Repeat with a different pair of numbers.

7. At the bottom of the **Recording Sheet** describe a pattern or rule you notice in how the sum changes when one addend becomes 1 more. You can use words, numbers, and/or pictures.

Example
9 + <u>6</u> = 15
9 + <u>7</u> = 16
What has changed?

You could try using number lines, 10-frames, or quick drawings to help show your thinking.

Grade 2 Lesson 1   1   ©Curriculum Associates, LLC.
Copying permitted for classroom use.

Adding by Counting On and Making a Ten

Name: _____

Add.

1 $8 + 2 =$ _____

2 $8 + 3 =$ _____

3 $6 + 4 =$ _____

4 $6 + 8 =$ _____

5 $7 + 3 =$ _____

6 $7 + 5 =$ _____

7 $9 + 1 =$ _____

8 $9 + 6 =$ _____

9 $5 + 5 =$ _____

10 $5 + 8 =$ _____

11 $9 + 2 =$ _____

12 $2 + 9 =$ _____

13 $8 + 4 =$ _____

14 $4 + 8 =$ _____

15 $6 + 9 =$ _____

16 $6 + 7 =$ _____

17 Which strategy did you use to solve problem 11? Explain.

Using Doubles and Doubles Plus 1

Name: _____

Add.

1 4 + 4 = _____

2 4 + 5 = _____

3 6 + 6 = _____

4 5 + 6 = _____

5 7 + 7 = _____

6 8 + 7 = _____

7 9 + 9 = _____

8 8 + 9 = _____

9 5 + 5 = _____

10 6 + 5 = _____

11 8 + 8 = _____

12 7 + 8 = _____

13 Which strategy did you use to solve problem 12? Explain why.

Use after Lesson 1, Session 3

Can You Prove It?

Your Challenge

You have learned the doubles plus 1 strategy.
What happens when 1 is added to other addends?

> 6   7   8   9   10   11   12

1. Choose two numbers from above to add together and find the sum. Show your work on the **Recording Sheet**.

2. Keep one addend the same and change the other addend to be 1 more. Find the new sum. Show your work on the **Recording Sheet**.

3. Look at both equations and describe on the **Recording Sheet** what has changed.

4–6. Repeat with a different pair of numbers.

7. At the bottom of the **Recording Sheet** describe a pattern or rule you notice in how the sum changes when one addend becomes 1 more. You can use words, numbers, and/or pictures.

Example

$9 + \underline{6} = 15$

$9 + \underline{7} = 16$

What has changed?

You could try using number lines, 10-frames, or quick drawings to help show your thinking.

Can You Prove It?

1.

2.

3.

4.

5.

6.

7.

Counting On and Making a Ten to Subtract

Name: _____

Complete each set of equations.

1 $12 - 3 = \boxed{}$

$3 + \boxed{} = 12$

2 $14 - 5 = \boxed{}$

$5 + \boxed{} = 14$

3 $11 - 3 = \boxed{}$

$3 + \boxed{} = 11$

4 $15 - 7 = \boxed{}$

$7 + \boxed{} = 15$

5 $12 - \boxed{} = 10$

$12 - 4 = \boxed{}$

6 $13 - \boxed{} = 10$

$13 - 6 = \boxed{}$

7 $16 - \boxed{} = 10$

$16 - 9 = \boxed{}$

8 $15 - \boxed{} = 10$

$15 - 9 = \boxed{}$

9 In problem 6, how did you use your first answer to find your second answer?

Using Fact Families to Help Subtract

Name: _____

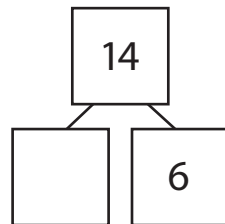## Complete the number bond to show each subtraction equation.

1 $11 - 8 = ?$

```
      ┌────┐
      │ 11 │
      └────┘
      ╱     ╲
 ┌────┐   ┌────┐
 │    │   │  8 │
 └────┘   └────┘
```

2 $13 - 4 = ?$

```
      ┌────┐
      │ 13 │
      └────┘
      ╱     ╲
 ┌────┐   ┌────┐
 │  4 │   │    │
 └────┘   └────┘
```

3 $15 - 9 = ?$

```
      ┌────┐
      │ 15 │
      └────┘
      ╱     ╲
 ┌────┐   ┌────┐
 │  9 │   │    │
 └────┘   └────┘
```

4 $12 - 5 = ?$

```
      ┌────┐
      │ 12 │
      └────┘
      ╱     ╲
 ┌────┐   ┌────┐
 │    │   │  5 │
 └────┘   └────┘
```

5 $14 - 6 = ?$

```
      ┌────┐
      │ 14 │
      └────┘
      ╱     ╲
 ┌────┐   ┌────┐
 │    │   │  6 │
 └────┘   └────┘
```

6 $11 - 7 = ?$

```
      ┌────┐
      │ 11 │
      └────┘
      ╱     ╲
 ┌────┐   ┌────┐
 │  7 │   │    │
 └────┘   └────┘
```

Complete the number bond. Then write four equations.

7 _____ + _____ = 13   13 − _____ = _____

13 = _____ + _____   _____ = 13 − _____

```
      ┌────┐
      │ 13 │
      └────┘
      ╱     ╲
 ┌────┐   ┌────┐
 │    │   │  5 │
 └────┘   └────┘
```

8 _____ + _____ = 17   17 − _____ = _____

17 = _____ + _____   _____ = 17 − _____

```
      ┌────┐
      │ 17 │
      └────┘
      ╱     ╲
 ┌────┐   ┌────┐
 │  9 │   │    │
 └────┘   └────┘
```

9 How can a fact family help you subtract?

Mystery Number

Your Challenge

Read the clues on the **Recording Sheet** carefully to work out all the possible answers for the mystery numbers. Then write a clue that will find the mystery number and tell what the mystery number is.

1. Read the clues:

The mystery number is a two-digit number.

It is greater than 40 and less than 70.

The tens digit is 1 less than the ones digit.

2. Write the possible mystery numbers:

The mystery number could be: *45, 56, 67.*

3. Write a final clue that will find the mystery number:

The two digits of the mystery number have a sum of 11.

4. Tell the mystery number:

The mystery number is: *56.*

Make your own! Check to make sure your mystery number puzzle works and then share it with a friend.

Mystery Number

The mystery number is less than 60 and greater than 30.

The tens digit is greater than the ones digit.

The difference between the tens digit and the ones digit is 2.

The mystery number could be: _____ .

Final clue: _____

The mystery number is: _____ .

The mystery number has two digits that are the same.

The sum of the digits is less than 10.

The mystery number could be: _____ .

Final clue: _____

The mystery number is: _____ .

The mystery number _____ .

It is greater than _____ .

It is less than _____ .

The mystery number could be: _____ .

Final clue: _____

The mystery number is: _____ .

2

Solving Take-Apart Word Problems

Name: _____

Solve problems 1–6.

1 Hailey buys 9 potatoes. 4 potatoes are white. The rest are red. How many red potatoes are there? Show your work.

Solution _____ potatoes are red.

2 Levi has 17 pet fish. 7 of the fish are goldfish. The rest are mollies. How many fish are mollies? Show your work.

Solution _____ fish are mollies.

3 Ada wants to read 12 books over the summer. 5 books are stories about cats. The rest are stories about horses. How many books are stories about horses? Show your work.

Solution _____ books are stories about horses.

4 There are 16 chairs at a table. 7 students sit down. The rest of the chairs are empty. How many chairs are empty? Show your work.

Solution _____ chairs are empty.

Solving Take-Apart Word Problems *continued*   Name: _____

5 Luis sees 14 dogs at the dog park. 6 of the dogs are small dogs. The rest of the dogs are big dogs. How many dogs are big? Show your work.

Solution _____ dogs are big.

6 Sadie has 20 crayons. She finds 8 crayons in her desk. The rest of the crayons are in her crayon box. How many crayons are in Sadie's crayon box? Show your work.

Solution _____ crayons are in the crayon box.

7 Which strategy did you use to solve problem 6? Explain why.

Solving Comparison Word Problems

Name: _____

Solve problems 1–6. Show your work.

1 There are 4 fewer cats than dogs. There are 2 cats. How many dogs are there?

_____ dogs

2 Trevor sees 8 red birds. He sees 5 more red birds than blue birds. How many blue birds does Trevor see?

Trevor sees _____ blue birds.

3 Anna has 7 baskets and some flowers. She has 5 fewer baskets than flowers. How many flowers does Anna have?

Anna has _____ flowers.

4 There are 14 coats and some hats. There are 6 more coats than hats. How many hats are there?

_____ hats

5 There are 9 apples. There are 6 fewer apples than oranges. How many oranges are there?

_____ oranges

6 Brynne has 13 books. She has 8 more books than games. How many games does Brynne have?

Brynne has _____ games.

What Is the Rule?

Your Challenge

Read the two problems below and solve them.

Use the **Recording Sheet** to show your work.

Find the rule that tells the total number of ways for any given number.

1. Stacy puts 8 pieces of fruit in a bowl.

Some are oranges and some are pears.

What are all the possible combinations of fruit in the bowl?

What is the total number of ways?

2. Collin has 9 pieces of fruit in his bag.

Some are peaches and some are bananas.

What are all the possible combinations of fruit in the bag?

What is the total number of ways?

3. How can you find the total number of ways for any given number of fruit for problems like these?

4. Why does that work? Use numbers, pictures, and/or words to explain how to tell the total number of ways when the total number of fruit is known.

How many different ways were there for 8 pieces of fruit?

How many for 9 pieces of fruit?

What do you notice?

Name _____

What Is the Rule?

1. Total number of ways:	**2.** Total number of ways:

3.

4.

2

Using Picture Graphs

Name: _____

Karin asks her friends: *What is your favorite animal?*
Then she makes this picture graph.

1 How many friends choose dogs?

_____

2 How many friends choose cats?

_____

3 Complete the equation to show how many friends choose dogs or cats.

_____ + _____ = _____

4 How many more friends choose cats than horses? _____

5 How many fewer friends choose ducks than dogs? _____

6 How many friends choose horses or ducks? _____

7 How many more friends choose horses than ducks? _____

8 How many fewer friends choose ducks than cats? _____

9 How many friends choose dogs or horses? _____

10 Karin asked 15 friends to name one favorite animal. Is this correct? Explain.

Favorite Animals			
	🐕		
🐈	🐕		
🐈	🐕	🐎	
🐈	🐕	🐎	
🐈	🐕	🐎	🦆
🐈	🐕	🐎	🦆
Cat	Dog	Horse	Duck

Making Bar Graphs and Picture Graphs

Name: _____

Josh makes this tally chart to show the colors of blocks he has.

Red	Blue	Green
||	||||	||||

Use the data in Josh's tally chart to make a picture graph.

1 Write a title on the line above the graph.

2 Write the missing color names next to *Red*.

3 Draw the correct number of squares above the word *Red*.

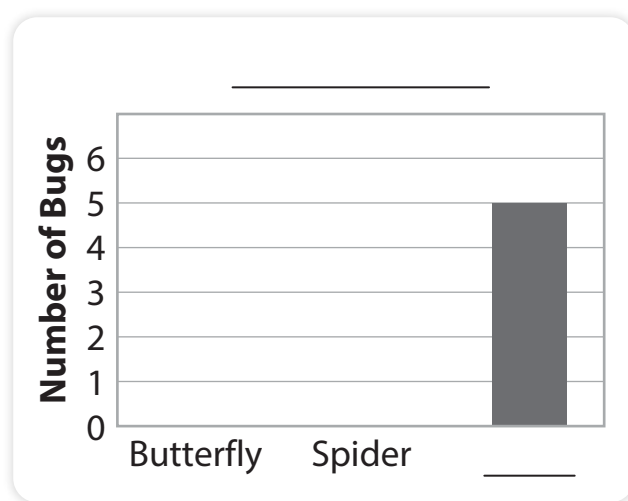**4** Draw the correct number of squares above the word *Blue*.

_____		
		☐
		☐
		☐
		☐
Red	_____	_____

Hali makes this tally chart to show the kinds of bugs she sees in her garden.

Butterfly	Spider	Bee

Use the data in the tally chart to complete the bar graph.

5 Write a title for the graph.

6 Write the missing bug name next to *Butterfly* and *Spider*.

7 Draw a bar to show how many butterflies there are.

8 Draw a bar to show how many spiders there are.

_____

Number of Bugs — 6 5 4 3 2 1 0

Butterfly   Spider   _____

Graph It

Your Challenge

Collect data from your class.

Display the data in a graph.

Describe what the graph shows.

1. The data you will collect is hair colors of your classmates. Create a tally chart or table on the **Recording Sheet** to keep track of your data.

Collect the data and record the data with tally marks or check marks in your chart or table.

2. Make a picture graph or a bar graph to show the data you gathered about hair colors in your class.

Remember to include labels.

3. Look at the graph.

Which hair color is most common?

What else do you notice?

How many students are in the class? How many tally marks or check marks do you have? Do those numbers match? Did you include yourself?

Graph It

1.

2.

3.

Ways to Solve Two-Step Problems

Name: _____

Solve problems 1–6. Show your work.

1 Jack has 9 flowers to plant. He plants 2 flowers before lunch. Then he plants 3 more after lunch. How many flowers does Jack have left to plant?

Jack has _____ flowers left to plant.

2 There are 8 girls at the park. First, 5 girls go home. Then 6 more girls come to the park. How many girls are at the park now?

There are _____ girls at the park.

3 Bella paints 6 pictures on Monday and 8 pictures on Wednesday. Then she paints 3 more pictures on Friday. How many pictures does Bella paint this week?

Bella paints _____ pictures this week.

4 Ali puts 12 books in a box. She takes 4 books out of the box. Then she puts 6 books in the box. How many books are in the box now?

There are _____ books in the box.

5 Lucas has 5 crayons. His sister gives him 6 more. Then he gives 4 to a friend. How many crayons does Lucas have now?

Lucas has _____ crayons.

6 Miss Brady puts 15 pencils in her desk. Then she takes out 9 pencils. After school she puts 5 pencils back in her desk. How many pencils are in Miss Brady's desk now?

There are _____ pencils in the desk.

More Ways to Solve Two-Step Problems

Name: _____

Solve problems 1–4. Show your work.

1 There are 7 children in the class. Then 4 more children join the class. 3 children leave the class and go to the library. How many children are in the class now?

There are _____ children in the class now.

2 Pedro has 8 toy cars. Then he buys 3 more. He gives some cars to his sister. Now Pedro has 6 cars. How many cars did Pedro give to his sister?

Pedro gives _____ cars to his sister.

3 Holly has 14 stickers in her desk. She gives 6 stickers away. Then she gets more stickers from a friend. Now Holly has 15 stickers. How many stickers did she get from a friend?

Holly gets _____ stickers from a friend.

4 Lei draws 5 blue stars and 7 green stars on her paper. Then she draws some yellow stars. Now there are 18 stars on her paper. How many yellow stars does Lei draw?

Lei draws _____ yellow stars.

Silver Coins

Your Challenge

Solve the following problems using a strategy that makes sense to you. Use the **Recording Sheet** to show your work.

1. The cook buys 5 oranges and 3 pears for 22 silver coins. 1 pear cost 4 silver coins. All oranges are the same price and all pears are the same price. How much does one orange cost?

2. The baker buys 6 eggs and 4 jugs of milk for 34 silver coins. 1 egg and 1 jug of milk cost 7 silver coins. All eggs are the same price and all jugs of milk are the same price. How much does one egg cost?

How can you organize your work to make it easier to solve the problem? What do you already know? What are you trying to find?

1

Silver Coins

1.

2.

2

Different Ways to Show Addition

Name: _____

Find the sums and missing addends.

1 $30 + 7 + 50 + 3 =$ ___90___

2 $37 + 53 =$ _____

3 $20 + 8 + 40 + 2 =$ _____

4 $28 + 42 =$ _____

5 $60 + 6 + 10 + 4 =$ _____

6 $66 + 14 =$ _____

7 $40 + 5 + 40 + 5 =$ _____

8 $45 +$ _____ $= 90$

9 $30 + 9 + 20 + 1 =$ _____

10 _____ $+ 21 = 60$

11 $20 + 4 + 60 + 6 =$ _____

12 $24 +$ _____ $= 90$

13 $40 + 3 + 30 + 7 =$ _____

14 _____ $+ 37 = 80$

15 How does the information in problem 9 help you solve problem 10?

More Ways to Show Addition

Name: _____

Add.

1 $27 + 3 =$ _____30_____

 $27 + 13 =$ _____40_____

 $27 + 15 =$ _____42_____

2 $48 + 2 =$ _____

 $48 + 32 =$ _____

 $48 + 35 =$ _____

3 $39 + 1 =$ _____

 $39 + 31 =$ _____

 $39 + 34 =$ _____

4 $26 + 4 =$ _____

 $26 + 24 =$ _____

 $26 + 27 =$ _____

5 $75 + 5 =$ _____

 $75 + 15 =$ _____

 $75 + 17 =$ _____

6 $53 + 7 =$ _____

 $53 + 27 =$ _____

 $53 + 29 =$ _____

7 $62 + 8 =$ _____

 $62 + 28 =$ _____

 $62 + 29 =$ _____

8 $23 + 7 =$ _____

 $23 + 17 =$ _____

 $23 + 18 =$ _____

9 $36 + 4 =$ _____

 $36 + 24 =$ _____

 $36 + 29 =$ _____

10 $41 + 9 =$ _____

 $41 + 29 =$ _____

 $41 + 32 =$ _____

Use after Lesson 6, Session 3

More Ways to Show Addition *continued*

Name: _____

11 $55 + 5 =$ _____

$55 + 25 =$ _____

$55 + 29 =$ _____

12 $79 + 1 =$ _____

$79 + 11 =$ _____

$79 + 15 =$ _____

13 $21 + 29 =$ _____

$18 + 14 =$ _____

$49 + 22 =$ _____

14 $34 + 26 =$ _____

$45 + 22 =$ _____

$27 + 16 =$ _____

15 $75 + 12 =$ _____

$52 + 37 =$ _____

$62 + 28 =$ _____

16 $59 + 31 =$ _____

$38 + 24 =$ _____

$43 + 29 =$ _____

17 Explain how you solved problem 9.

18 Which problem(s) in #15 could you solve by making 10 first? Explain your thinking.

Name _____

Ways to Make 83

Your Challenge

Use the digits below to make two 2-digit numbers that add to 83.

For each equation you can only use each digit once.

0	1	2	3	4	5	6	7	8	9

Example

$$\underline{6}\ \underline{0} + \underline{2}\ \underline{3} = 83$$

Are there any patterns you notice that might help you think of other possibilities?

1

Ways to Make 83

0	1	2	3	4	5	6	7	8	9

1. _____ _____ + _____ _____ = 83

2. _____ _____ + _____ _____ = 83

3. _____ _____ + _____ _____ = 83

Use the same rules to find other combinations to make 83. What patterns can you use to help you?

2

Subtracting by Adding Up

Name: _____

Subtract.

1 $50 - 29 = ?$

$\underline{\quad 29 + 20 \quad} = \underline{\ 49\ }$

$\underline{\quad 49 + 1 \quad} = \underline{\ 50\ }$

$\underline{\quad 20 + 1 \quad} = \underline{\ 21\ }$

$50 - 29 = \underline{\ 21\ }$

2 $71 - 45 = ?$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$

$71 - 45 = \underline{\quad}$

3 $80 - 41 = ?$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$80 - 41 = \underline{\quad}$

4 $63 - 28 = ?$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$

$63 - 28 = \underline{\quad}$

5 $43 - 28 = ?$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$

$43 - 28 = \underline{\quad}$

6 $95 - 65 = ?$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$95 - 65 = \underline{\quad}$

Use after Lesson 7, Session 2

Subtracting by Adding Up *continued*

Name: _____

7 $65 - 39 = ?$

_____ + _____ = _____

_____ + _____ = _____

_____ + _____ = _____

_____ + _____ + _____ = _____

$65 - 39 =$ _____

8 $47 - 15 ?$

_____ + _____ = _____

_____ + _____ = _____

_____ + _____ = _____

_____ + _____ + _____ = _____

$47 - 15 =$ _____

9 $75 - 28 = ?$

_____ + _____ = _____

_____ + _____ = _____

_____ + _____ = _____

_____ + _____ + _____ = _____

$75 - 28 =$ _____

10 $54 - 12 = ?$

_____ + _____ = _____

_____ + _____ = _____

_____ + _____ = _____

_____ + _____ + _____ = _____

$54 - 12 =$ _____

13 How did you decide what to add first? Then how did you get the answer?

Subtracting by Regrouping

Name: _____

Circle all the problems where you can regroup a ten to help subtract. Then solve the circled problems.

(1)
$$\begin{array}{r} 32 \\ -\ 16 \\ \hline 16 \end{array}$$

2
$$\begin{array}{r} 48 \\ -\ 15 \\ \hline \end{array}$$

3
$$\begin{array}{r} 57 \\ -\ 25 \\ \hline \end{array}$$

4
$$\begin{array}{r} 63 \\ -\ 39 \\ \hline \end{array}$$

5
$$\begin{array}{r} 76 \\ -\ 26 \\ \hline \end{array}$$

6
$$\begin{array}{r} 82 \\ -\ 37 \\ \hline \end{array}$$

7
$$\begin{array}{r} 38 \\ -\ 28 \\ \hline \end{array}$$

8
$$\begin{array}{r} 53 \\ -\ 44 \\ \hline \end{array}$$

9
$$\begin{array}{r} 42 \\ -\ 25 \\ \hline \end{array}$$

10
$$\begin{array}{r} 96 \\ -\ 40 \\ \hline \end{array}$$

11
$$\begin{array}{r} 92 \\ -\ 56 \\ \hline \end{array}$$

12
$$\begin{array}{r} 65 \\ -\ 23 \\ \hline \end{array}$$

13
$$\begin{array}{r} 86 \\ -\ 19 \\ \hline \end{array}$$

14
$$\begin{array}{r} 59 \\ -\ 33 \\ \hline \end{array}$$

15
$$\begin{array}{r} 77 \\ -\ 48 \\ \hline \end{array}$$

16
$$\begin{array}{r} 62 \\ -\ 27 \\ \hline \end{array}$$

17 How did you know which problems to circle?

18 Check one of your answers by solving it using a different strategy. Show your work.

Use after Lesson 7, Session 3

Let's Investigate

Your Challenge

What happens to our answers when we change one of the numbers in a subtraction problem? Let's investigate!

1. Look at the problems on the **Recording Sheet**.

2. What has changed in the second problem?

3. Solve the problems.

4. Explain how the answers are different.

5. Repeat with the other set of problems.

6. What did you find from your investigation?

Example

$21 - 16$ 　　　　　　　　　　$21 - 17$

1 has been added to the second number in the second problem.

$21 - 16 = 5$ 　　　　　　$21 - 17 = 4$

The second answer is 1 less than the first.

> Can you make a picture to show why this works?

Let's Investigate!

21 − 16   22 − 16   What has changed?

Solve

21 − 16 = _____   22 − 16 = _____   What has changed?

_____

13 − 7   13 − 8   What has changed?

Solve

13 − 7 = _____   13 − 8 = _____   What has changed?

_____

Use the problems 16 − 4, 16 − 5, and 17 − 5 to show what you have found. Why do you think this happens?

2

Strategies to Find a Missing Addend

Name: _____

Solve.

1 $35 + \underline{\quad 10 \quad} = 45$
   $35 + \underline{\quad 20 \quad} = 55$
   $35 + \underline{\quad 25 \quad} = 60$

2 $24 + \underline{\qquad\qquad} = 34$
   $24 + \underline{\qquad\qquad} = 64$
   $24 + \underline{\qquad\qquad} = 68$

3 $42 + \underline{\qquad\qquad} = 52$
   $42 + \underline{\qquad\qquad} = 82$
   $42 + \underline{\qquad\qquad} = 87$

4 $51 + \underline{\qquad\qquad} = 61$
   $51 + \underline{\qquad\qquad} = 71$
   $51 + \underline{\qquad\qquad} = 76$

5 $26 + \underline{\qquad\qquad} = 36$
   $26 + \underline{\qquad\qquad} = 66$
   $26 + \underline{\qquad\qquad} = 69$

6 $58 + \underline{\qquad\qquad} = 60$
   $58 + \underline{\qquad\qquad} = 70$
   $58 + \underline{\qquad\qquad} = 71$

7 $39 + \underline{\qquad\qquad} = 40$
   $39 + \underline{\qquad\qquad} = 70$
   $39 + \underline{\qquad\qquad} = 75$

8 $27 + \underline{\qquad\qquad} = 30$
   $27 + \underline{\qquad\qquad} = 60$
   $27 + \underline{\qquad\qquad} = 65$

9 $44 + \underline{\qquad\qquad} = 54$
   $44 + \underline{\qquad\qquad} = 64$
   $44 + \underline{\qquad\qquad} = 67$

10 $69 + \underline{\qquad\qquad} = 70$
   $69 + \underline{\qquad\qquad} = 90$
   $69 + \underline{\qquad\qquad} = 93$

**Strategies to Find a
Missing Addend** *continued*

Name: _____

11 33 + _____ = 43

33 + _____ = 73

33 + _____ = 76

12 48 + _____ = 50

48 + _____ = 80

48 + _____ = 85

13 26 + _____ = 70

32 + _____ = 61

49 + _____ = 95

14 57 + _____ = 83

34 + _____ = 67

28 + _____ = 53

15 62 + _____ = 85

41 + _____ = 96

53 + _____ = 77

16 19 + _____ = 75

43 + _____ = 87

68 + _____ = 99

17 Explain how the strategy to solve problem 5 is different from the strategy used to solve problem 6.

18 Explain the strategy you used to solve the first part of problem 14.

Using Subtraction Strategies with Two-Digit Numbers

Name: _____

Subtract.

1
```
  96
- 52
----
  44
```

2
```
  74
- 36
----
```

3
```
  24
- 18
----
```

4
```
  49
- 25
----
```

5
```
  55
- 37
----
```

6
```
  84
- 53
----
```

7
```
  32
- 15
----
```

8
```
  96
- 62
----
```

9
```
  76
- 58
----
```

10 Describe how you used regrouping to solve problem 2.

11 Check one of your answers using addition. Show your work.

Strategy Detective

Your Challenge

You have been learning strategies for addition and subtraction. The following problem has been solved in four different ways.

1. Investigate how the problem has been solved each time.

2. Use numbers, pictures, and words to explain on the **Recording Sheet** how or why each of these strategies work.

$$46 + 39 =$$

Strategy 1:

$40 + 30 = 70$

$6 + 9 = 15$

$70 + 15 = 85$

Strategy 2:

$46 + 4 = 50$

$39 - 4 = 35$

$50 + 35 = 85$

Strategy 3:

$46 + 4 = 50$

$39 + 1 = 40$

$50 + 40 = 90$

$4 + 1 = 5$

$90 - 5 = 85$

Strategy 4:

$46 - 6 = 40$

$39 - 9 = 30$

$40 + 30 = 70$

$6 + 9 = 15$

$70 + 15 = 85$

Strategy Detective

46 + 39 =

Strategy 1	**Strategy 2**

Strategy 3	**Strategy 4**

Ways to Model Word Problems

Name: _____

Solve problems 1–6. Show your work.

1 Tony has 37 building blocks. Then he buys more blocks. Now he has 51 blocks. How many blocks does Tony buy?

Tony buys _____ blocks.

2 There are some chairs in the art room. Mrs. Lopez brings in 16 more chairs. Now there are 42 chairs. How many chairs were in the room at the start?

There were _____ chairs in the room at the start.

3 Jen has some buttons. She gets 23 more buttons from her mom. Now she has 65 buttons. How many buttons did Jen have to begin with?

Jen had _____ buttons to begin with.

4 Colby packs 31 boxes in one day. He packs 12 boxes in the morning and some boxes after lunch. How many boxes does Colby pack after lunch?

Colby packs _____ boxes after lunch.

5 Ayanna reads 26 pages of her book at school. Later she reads more pages at home. Now she has read 54 pages. How many pages does Ayanna read at home?

Ayanna reads _____ pages at home.

6 The camp has some tents. Campers set up 42 more tents. Now the camp has 60 tents. How many tents did the camp have to begin with?

The camp had _____ tents to begin with.

More Ways to Model Word Problems

Name: _____

Solve problems 1–6. Show your work.

1 Some apples are in a box. Will takes 22 apples from the box. Now there are 46 apples in the box. How many apples were in the box to begin with?

There were _____ apples in the box to begin with.

2 A store has some coats for sale. People buy 31 coats from the store. Now the store has 45 coats. How many coats did the store have at the start?

The store had _____ coats at the start.

3 Mr. Chan has 54 papers to read. He reads some papers on Monday. Now he has 27 papers to read. How many papers did he read on Monday?

Mr. Chan read _____ papers on Monday.

4 There are 32 red bikes at the park. There are 41 blue bikes. How many fewer red bikes are at the park than blue bikes?

There are _____ fewer red bikes at the park.

5 There are 24 students walking to school. There are 17 students biking to school. How many more students are walking to school than biking to school?

_____ more students are walking to school.

6 Lilly has a bag of prizes. Her friends take 38 prizes from the bag. Now there are 16 prizes in the bag. How many prizes did Lilly have at the start?

Lilly had _____ prizes at the start.

Use after Lesson 9, Session 3

Ways to Solve Two-Step Word Problems

Name: _____

Solve problems 1–6. Show your work.

1 Max has 21 balloons. His friend gives him 10 more balloons. Then 16 balloons blow away. How many balloons does Max have left?

Max has _____ balloons left.

2 Chris makes 36 rolls for a bake sale. He sells 14 rolls. Then he makes 20 more rolls. How many rolls does Chris have now?

Chris has _____ rolls now.

3 There are 15 children at the park. Then 21 more children come to the park. After lunch, 16 children go home. How many children are at the park now?

There are _____ children at the park now.

4 Audrey has 42 tickets to sell. She sells 23 tickets before the game. She sells 15 tickets at the game. Does Audrey have enough tickets left for 6 people? Explain.

_____

_____

_____

_____

5 Sam has 25 pennies. Carly has 12 fewer pennies than Sam. How many pennies do they have in all?

Sam and Carly have _____ pennies in all.

6 Sophie walks up 32 stairs. Miguel walks up 11 fewer stairs than Sophie. How many stairs do they walk up in all?

Sophie and Miguel walk up _____ stairs in all.

Finding the Balance

Your Challenge

You worked on addition and subtraction strategies. Now it's time put them to use as you make sums and differences that equal the same amount. Be sure to show how you thought about each equation using words, pictures, and/or numbers.

Find the balance by making the equation true on each balance board.

1. For each equation on the **Recording Sheet** use two-digit numbers that do not have a zero for the ones digit.

2. You cannot use a number more than once in each equation.

3. You can use words, drawings, and/or numbers to show why the equation is balanced.

Example

$$34 + 35 = 23 + 46$$

Finding the Balance

____ + ____ = ____ + ____

____ + ____ = ____ + ____

____ − ____ = ____ − ____

____ − ____ = ____ + ____

____ + ____ = ____ − ____

2

Finding the Value of Sets of Like Coins

Name: _____

1 What is the value of the pennies?

(1¢) (1¢) (1¢) (1¢) (1¢) (1¢)

The value is _____ ¢.

2 What is the value of the nickels?

(5¢) (5¢) (5¢) (5¢) (5¢) (5¢) (5¢)

The value is _____ ¢.

3 What is the value of the dimes?

(10¢) (10¢) (10¢) (10¢) (10¢) (10¢) (10¢) (10¢)

The value is _____ ¢.

4 What is the value of the quarters?

(25¢) (25¢) (25¢)

The value is _____ ¢.

5 Gavin and Elena have the same amount of money. Gavin has 1 quarter.
Elena has 3 coins. What coins does Elena have?

Elena has _____ .

6 Riley and Jose have the same amount of money. Riley has 2 dimes.
Jose has 4 coins. What coins does Jose have?

Jose has _____ .

7 What are two different ways to make 50 cents?

Finding the Value of Sets of Mixed Coins

Name: _____

Solve problems 1–5. Show your work.

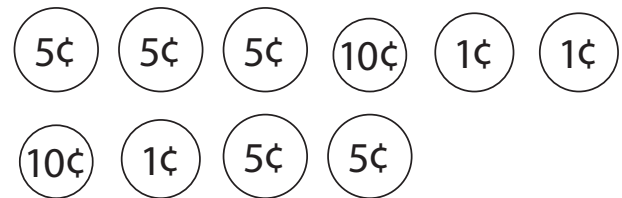**1** Gracie has the coins shown at the right. How many cents does she have?

25¢ 1¢ 5¢ 1¢ 10¢

1¢ 5¢ 1¢ 5¢

Gracie has _____ ¢.

2 Evan has the coins shown at the right. How many cents does he have?

25¢ 1¢ 5¢ 25¢ 5¢

1¢ 5¢ 5¢

Evan has _____ ¢.

3 Mei has the coins shown at the right. How many cents does she have?

5¢ 5¢ 5¢ 10¢ 1¢ 1¢

10¢ 1¢ 5¢ 5¢

Mei has _____ ¢.

4 Carlos has the coins shown at the right. How many cents does he have?

25¢ 5¢ 5¢ 10¢ 5¢

10¢ 1¢ 25¢ 10¢

Carlos has _____ ¢.

5 Jana has the coins shown at the right. How many cents does she have?

10¢ 5¢ 5¢ 1¢ 1¢ 10¢

1¢ 5¢ 1¢ 25¢

Jana has _____ ¢.

Solving Word Problems About Money

Name: _____

Solve problems 1–6. Show your work.

1 Amber has a $20 bill. She buys a book for $12. What bills could Amber get back as change?

Amber can get back _____

_____.

2 Ben wants to buy a new game. The game costs $40. Ben has two $10 bills and one $5 bill. How much more does he need to buy the new game?

Ben needs $ _____ more.

3 Mrs. Cooper gives Kyra $35 for walking her dog. Kyra puts the money in her pocket. She has one $20 bill and two $1 bills. What other bills could Kyra have in her pocket?

Kyra can have _____

_____.

4 Gina buys a present and pays with two $20 bills. She gets back as change one $10 bill and four $1 bills. How much does Gina spend on the present?

Gina spends $_____ on the present.

5 Dylan's dad gives him one $20 bill and one $10 bill. Now Dylan has $46. What other bills could Dylan have?

Dylan could have _____

_____.

6 Angelo has two $5 bills and one $20 bill. Kate has $57. Angelo gets paid and now he has the same amount of money as Kate. How much money does Angelo get paid?

Angelo gets paid $_____.

Enrichment Activity

Name _____

The Nickel Jar

Your Challenge

Mia's family gives her a jar with 4 nickels in it. Each day she gets a nickel for making her bed. She puts it in the jar.

Answer the following questions and explain your thinking using words, pictures, and/or numbers.
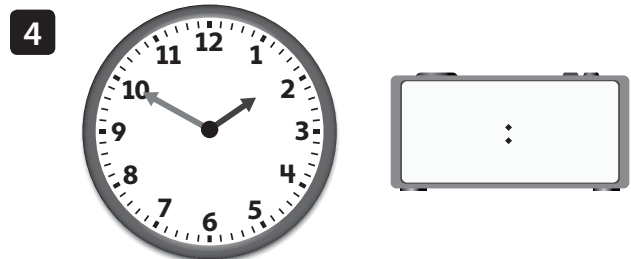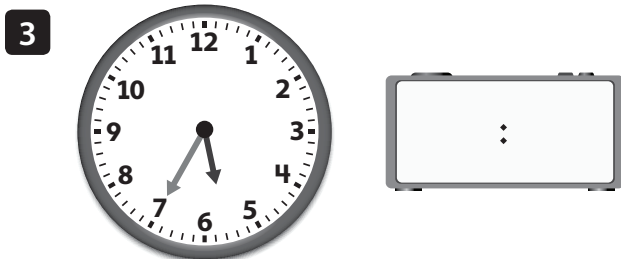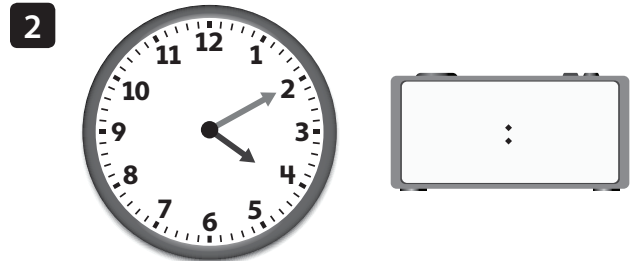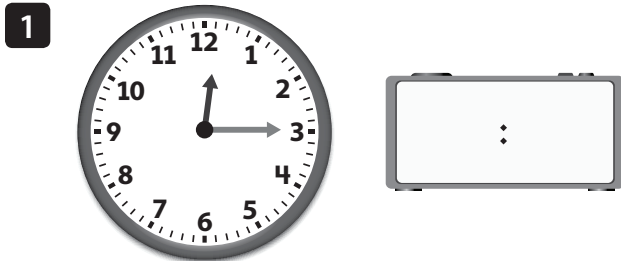
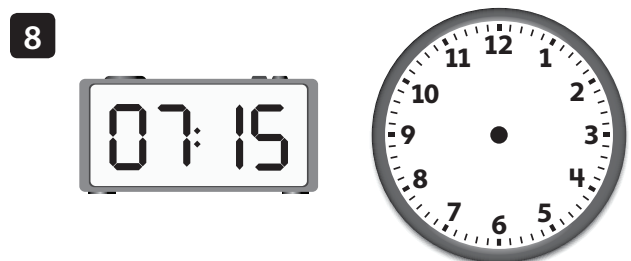| How much money will be in the jar after five days of making her bed?	How much money will be in the jar after 10 days of making her bed?
How many days of making her bed will it take to have $1.00?	How many days of making her bed will it take to have $2.25?

Telling and Writing Time

Name: _____

What time does the clock show?
Write the same time on the digital clock.

1

2

3

4

What time does the digital clock show?
Draw the same time on the other clock.

5   06:45

6   02:20

7   03:25

8   07:15

9 What strategy did you use to find the time for problem 4?

Use after Lesson 11, Session 2

The Broken Clocks

Your Challenge

Uh oh! The minute hand on all of our clocks fell off. Can you estimate what time each clock might show?
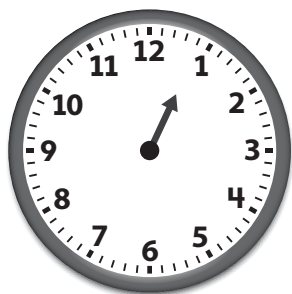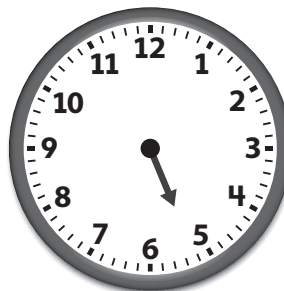
1. Draw where you think the minute hand should be on the first clock.

2. Write your estimate on the digital clock.

3. Explain your thinking for your estimate.

Example

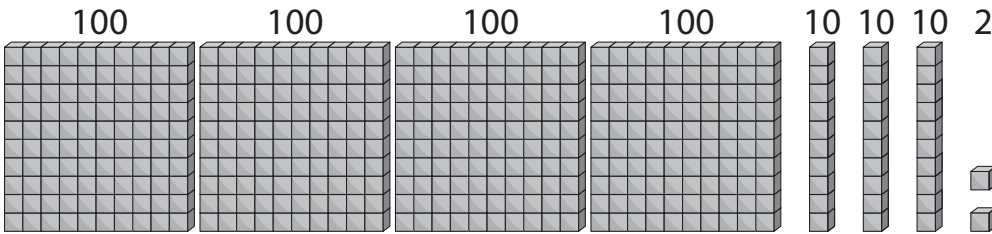*I think it is 1:30 because the hour hand is halfway between the 1 and the 2.*

1

The Broken Clocks
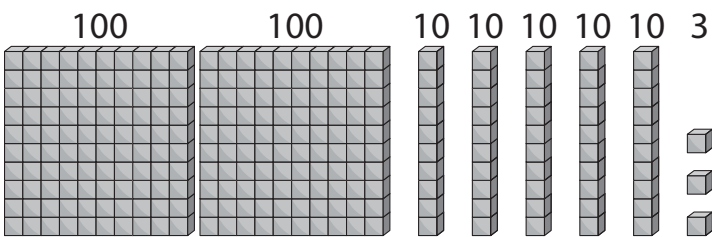
2

Understanding of Three-Digit Numbers

Name: _____
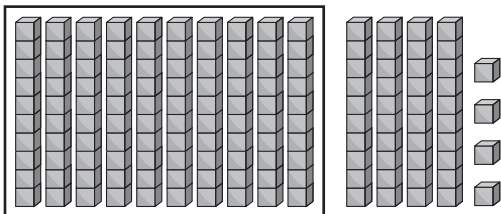
1 How many hundreds, tens, and ones are there?

100　　　　100　　　　100　　　　100　　　10 10 10　2

_____ hundreds + _____ tens + _____ ones =

400 + 30 + 2 = 432

2 How many hundreds, tens, and ones are there?

100　　　　100　　　10 10 10 10 10　3

_____ hundreds + _____ tens + _____ ones =

200 + 50 + 3 = 253

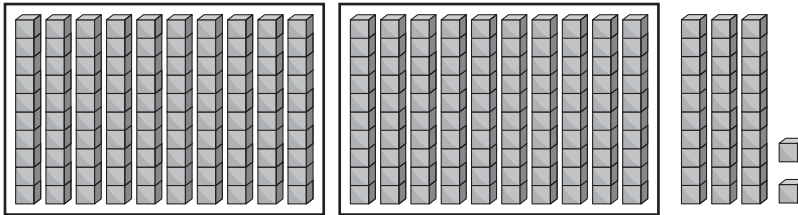**3** This model shows 144 in tens. How many tens are in 144? How many ones are left over?

144 = _____ tens and _____ ones

Understanding of Three-Digit Numbers *continued*

Name: _____

4 This model shows 232 in tens. How many tens are in 232? How many ones are left over?

232 = _____ tens and _____ ones

5 Complete the chart to show 5 hundreds + 4 ones.

Hundreds	Tens	Ones
	0	4

6 Complete the chart to show 8 hundreds + 2 tens + 3 ones.

Hundreds	Tens	Ones

7 Lara uses base-ten blocks to show the number 630. If she uses only tens rods, how many will she use?

_____

Name_____

Who is Correct?

Your Challenge

Kim and Jim are each making a mathematical argument.

Kim says 352 has 5 tens in it. Jim says 352 has 35 tens in it.

1. In what way is Kim correct? Use pictures to help explain.

2. In what way is Jim correct? Use pictures to help explain.

3. How many tens are in 110? Make your own mathematical argument. How can you use pictures to help explain?

You can use quick drawings of base-ten blocks to help you think about these ideas.

Who is Correct?

Kim's argument: 352
Jim's argument: 352
My argument: 110