Survive Math Five

Addition and Subtraction

Part 2

Subtraction

BRITISH COLUMBIA

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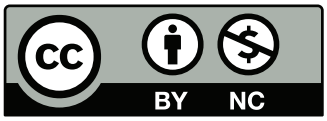
Part 2

Subtraction



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Survive Math 5
Part 2
Subtraction

Table of Contents

Welcome to Addition and Subtraction—Part 2

Introduction

Before you begin this set of lessons in subtraction, your child is to be given a Pre-Test. It has been developed to test your child's existing knowledge of subtraction skills and concepts and to give you an indication of the lesson where you should begin to work with your child.

What You Need

- Subtraction Pre-Test and Answer Key

Pre-Test

Take out the Subtraction Pre-Test. Make sure your child is equipped with a pencil, eraser, and a quiet place to work.

Explain to your child that he or she is to complete as many questions as possible, but is to stop when the questions become too difficult for him or her to solve.

Don't help your child answer any of the questions. Your assistance will skew the test results, and give you an inaccurate picture of your child's skill level.

Place the test in front of your child. Make sure he or she understands the directions. Ask your child to begin the test and to complete as much of it as possible. There is no time limit.

Mark the Pre-Test. The Answer Key is in the back of this book. The results will tell you where to begin your next lesson.

Pre-Test—
Basic Subtraction Facts to 18

Part A

Answer the following questions as quickly as possible. This is not a timed test.

1. 16 – 9 =	2. 13 – 7 =	3. 19 – 10 =	4. 13 – 4 =	5. 12 – 7 =
6. 16 – 7 =	7. 18 – 9 =	8. 12 – 6 =	9. 12 – 3 =	10. 15 – 7 =
11. 13 – 6 =	12. 14 – 5 =	13. 14 – 8 =	14. 5 – 3 =	15. 13 – 8 =
16. 17 – 8 =	17. 11 – 5 =	18. 11 – 2 =	19. 12 – 5 =	20. 8 – 3 =
21. 14 – 9 =	22. 12 – 4 =	23. 15 – 9 =	24. 6 – 2 =	25. 15 – 10 =

Fact Families

Complete the fact families by writing the related subtraction facts.

Example: 8 + 3 = 11, 3 + 8 = 11, 11 – 3 = 8, 11 – 8 = 3

1. 5 + 4 = 9 _____
   4 + 5 = 9 _____

2. 6 + 7 = 13 _____
   7 + 6 = 13 _____

3. 8 + 7 = 15 _____
   7 + 8 = 15 _____

4. 9 + 7 = 16 _____
   7 + 9 = 16 _____

5. 8 + 5 = 13 _____
   5 + 8 = 13 _____

Mental Math

Use your knowledge of the basic facts to complete each set of equations.

1. **16 – 7 = 9**

   26 – 7 =

   36 – 7 =

   46 – 7 =

   56 – 7 =

2. **14 – 9 = 5**

   54 – 9 =

   64 – 9 =

   74 – 9 =

   84 – 9 =

3. Find the difference by subtracting tens.

   Example: 259 – 129 = 130
   25 tens – 12 tens = 13 tens

   a. 52 – 12 =

   b 137 – 107 =

   c. 972 – 472 =

   d. 374 – 204 =

   e. 776 – 176 =

   These skills are covered in Lessons 22, 23, and 24.

Part B—Subtracting 2- and 3-digit Numbers Without Regrouping.

Subtract the following equations

1. 89 –46	2. 97 –94	3. 98 –48	4. 67 –23	5. 99 –21
6. 854 –321	7. 783 –652	8. 921 –520	9. 783 –521	10. 957 –246

These skills are covered in Lesson 25.

Part C—Estimate to Subtract

1. Draw lines to match the number on the left to its rounded number on the right.

226	300
354	900
907	700
250	1000
976	200
736	400

2. Round to the nearest 10 and subtract.

a. 64 _____	b. 131 _____	c. 952 _____
–25 _____	–26 _____	–604 _____

3. Round to the nearest 100 and subtract.

1. 598	_____	2. 1817	_____	3. 2358	_____
–277	_____	–1151	_____	–2119	_____

These skills are covered in Lesson 26.

Part D—Subtraction With One Trade

A. Find the difference.

1. 81	2. 91	3. 82	4. 42	5. 71
–26	–35	–13	–29	–52
6. 783	7. 921	8. 126	9. 563	10. 926
–625	–570	–17	–281	–341

B. Subtract. Check your answers with addition. Write the addition questions next to each subtraction question.

1. 475	2. 968	3. 480
–64	–249	–140
4. 3567	5. 63 547	
–1549	–40 440	

These skills are covered in Lessons 27, 28, 29, 31, and 32.

Part E—Subtraction With Two Trades

Find the difference. Show your trading.

1.	2.	3.	4.	5.
832	830	531	640	842
–467	–265	–346	–41	–56

This skill is covered in Lessons 33 and 34.

Part F—Estimating Differences and Subtracting 4- to 6-Digit Numbers

A. Round numbers to the nearest 100 and subtract.

1.		2.	
3753	_____	15 343	_____
–1431	_____	–10 554	_____

3.	
375 421	_____
–164 820	_____

B. Round numbers to the nearest 1000 and subtract.

1.		2.	
5426	_____	23 410	_____
–1760	_____	–14 768	_____

3.	
598 320	_____
–76 780	_____

This skill is covered in Lesson 35.

Part G—Subtracting with Three Trades and Across Zeros

Find the difference.

1.	2.	3.	4.	5.
8243	$73.46	17 327	$100.00	43 346
–685	–19.99	–9 546	–41.50	–18 595

These skills are covered in Lessons 36, 37, and 38.

Lesson 22
Separating and Comparing Numbers

What You Need

- Practice sheet
- Teaching Aids
  - Subtraction flashcards
  - Counters
  - Materials to make the games suggested at the end of this lesson

If your child has automatic accurate recall of the basic subtraction facts, you may wish to move on to today's lesson. If not, spend some time reviewing the basic subtraction facts with your child. Use the flashcards. You can flash the cards for your child to answer, or your child can flash the cards for him or herself and call out the answer. You will also find game suggestions at the end of this lesson.

Exploring the Topic

Subtraction is the operation used to find the result of taking away something from a group, or finding out how many more are in one group than another. Subtraction is the opposite of addition. A minus sign (–) is used in subtraction.

Parent Script:

You use subtraction to take away something from a group or to find out how many more are in one group than another. What is left after subtracting one number from another is called the **difference** (the answer).

Read this word problem to me.

Alex took 12 doughnuts to her friend's party. She and her friends ate 9 doughnuts. How many doughnuts were left

How do you find the answer?

What words are clues that tell you to subtract? *(How many were left?)*

In this problem you are taking away something from a group.

You use subtraction to take away something from a group, or to find out how many more are in one group than another. What is left after subtracting one number from another is called the **difference** (the answer).

Read this word problem to me.

Alex took 12 doughnuts to her friend's party. She and her friends ate 9 doughnuts. How many doughnuts were left?

How do you find the answer?

What words are clues that tell you to subtract? *(How many were left?)*

In this problem you are taking away something from a group.

Now read this word problem.

Mark saw a bowl of fruit sitting on the table. There were 5 pears and 12 peaches. How many more peaches than pears were there?

Do you add or subtract?

What are the clue words? *(How many more.)*

When you compare two groups you use subtraction to find the answer.

Subtraction equations can be written in two different ways.

12 ***or*** **12 – 5 =**
–5

Have give your child read the following subtraction questions and answer each one orally. He or she may need to use counters or some other strategy to answer if he or she does not have recall of all the basic facts.

9 – 5 =	7 – 3 =	8 – 8 =
12 – 5 =	18 – 9 =	15 – 7 =
14 – 5 =	11 – 3 =	5 – 3 =

If your child does not have automatic accurate recall of the basic facts he or she will need to do extra practice. You will see game suggestions below that will make the practice more enjoyable.

Move on to the next section when your child is ready to work independently.

It's Your Turn
Have your child look at this section on the Lesson 22 Practice Sheet. Make sure your child understands the activity directions. Now ask your child to complete the section independently.

When your child has completed this section, mark his or her work. The Answer Key is at the back of this book. Help your child do any needed corrections.

Lesson 23
Counting Back and Fact Families

What You Need

- Practice sheets
- Teaching Aids
  - Subtraction flashcards
  - Counters
  - Metric ruler

Warm-Up

Use the subtraction flashcards to review the basic facts. Help your child work to develop automatic recall. Make up your own drill or use the game ideas from the previous lesson.

Now ask your child to take out the Lesson 23 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure he or she understands what is required to complete the activity.

When your child has finished, correct it with him or her. You will find the answers in the Answer Key at the back of the book.

Exploring the Topic

In an earlier lesson your child learned and/or reviewed counting back. Today's lesson begins by teaching your child how to count back to solve subtraction questions.

Parent Script:
If you can subtract quickly, it is much easier to complete easier subtraction activities. This is a good strategy to use until you know all the subtraction basic facts.

When you subtract, you are usually taking something away from a group. You can count back to find the answer.

Count back from twenty for me. Good.

Take out fifteen counters and give them to your child. Tell your child to drop one and ask him or her how many are left.

Now ask your child if he or she had to count the objects to know the answer.

Have your child continue to drop counters and tell you how many are left each time.

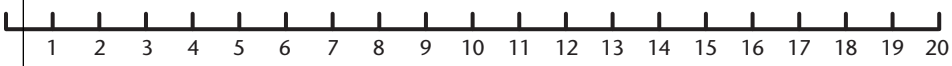
Ask your child to use the counters to answer the following questions.

14 – 9 = 11 – 8 = 13 – 6 =

Parent Script:
You don't always need to have counters in order to count back. You can use a number line. A number line can look like this. You count back along the line to subtract.

Find the answer to this question by using this number line.

9 – 4 =



Put your finger on the 9 and count back four numbers. What is the answer? Correct, it's 5.

The problem with this kind of number line is that you can't carry it around with you. Can you think of a number line that you use to draw straight lines? Yes, your ruler.

Take out your ruler. Put it down so you can read the numbers from 0 to 30. Find the answer to these questions by counting back on your ruler.

18 – 7 = 12 – 5= 8 – 5 = 13 – 4 =

If your child has no difficulty using this strategy, move on to the rest of the lesson. If your child has difficulty using the ruler as a number line, give him or her more practice. Work with your child until he or she can use this strategy.

Parent Script:
You already know that adding and subtracting are related. If you know that 6 + 6 = 12, you know that 12 – 6 = 6. Groups of facts that are related are called **fact families** or **number families**.

This is an example of a fact family.

7 + 8 = 15

8 + 7 = 15

15 – 7 = 8

15 – 8 = 7

What can you tell me about this fact family? *(Expect answers such as: the same three numbers are used in each equation, you can change the position of the addends but the answer (sum) is the same, when you take away one addend from the total, the other is left (the answer or difference.)*

Solve these questions. You can use counters or a number line if you necessary.

9 + 6 =

15 – 6 =

6 + 9 =

15 – 9 =

What can you tell me about this group of facts? *(answer should be similar to previous example)*

Make sure your child understands the following:

Two parts or groups make a total (sum) when you add.
For example: 3 + 8 = 11

The total (sum) doesn't change when you move the two parts around.
For example: 8 + 3 = 11

When you subtract, the total comes first and you take away a group or part from the total.
For example: 11 – 8 = 3 or 11 – 3 = 8

Use your knowledge of the addition facts to help you solve subtraction questions.

It's Your Turn
Have your child look at this section on the Lesson 23 Practice Sheet. To make sure your child understands the activity directions help him or her to complete the first question. Now ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. The Answer Key is at the back of this book. Help your child to do any needed corrections.

Challenge Yourself
Ask your child to finish the lesson by completing the **Challenge Yourself** activity. You will find the answers in the Answer Key.

Lesson 24
Mental Math for Subtraction

What You Need

- Practice sheets
- Teaching Aids
  Subtraction Flashcards

Warm-Up

Begin with a flashcard drill or a game. Ask your child to take out the Lesson 24 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure he or she understands what is required to complete the activity. This is a two minute timed exercise.

When your child has completed the activity, correct it with him or her using the Answer Key.

Exploring the Topic

Knowing the basic subtraction facts will help your child become better at subtracting larger numbers. These facts are used often so he or she should be able to recall them with speed and accuracy.

Parent Script:
Today I'm going to show you an easy way to subtract bigger numbers. If you know 8 – 5 = 3, this will help you with:

18 – 5 = 13

28 – 5 = 23

38 – 5 = 33

48 – 5 = 43

If you know 12 – 7 = 5 then:

22 – 7 = 15

32 – 7 = 25

42 – 7 = 35

Finish the last two equations by following the pattern.

52 – 7 = ___

62 – 7 = ___

What was the pattern? *(Each time you lose 1 ten and the 5 becomes the ones digit.)*

Here's the pattern again. Lose a 10 with each question and the ones digit becomes a 7.

16 – 9 = 7

so **26 – 9 = 17**

36 – 9 = 27

Can you see the pattern? Finish answering the remaining equations.

46 – 9 = ___

56 – 9 = ___

66 – 9 = ___

Numbers that have the same ending are easier to solve mentally.

Look at these:

Think: 7 tens – 2 tens = 5 tens

Write: 74 – 24 = 50

Think: 17 tens – 3 tens = 14 tens

Write: 174 – 34 = 140

Think: 33 tens – 22 tens = 11 tens

Write: 338 – 228 = 110

When your child can see the patterns in each of the examples, he or she is ready to try an independent activity.

It's Your Turn

Have your child look at this section on the Lesson 24 Practice Sheet. To make sure your child understands the activity directions help him or her to get started. Now ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. The Answer Key is at the back of the book. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You will find the answers in the Answer Key.

Lesson 25
Subtracting 2- and 3-Digit Numbers Without Regrouping

What You Need

- Practice sheets
- Teaching Aids
  - Subtraction flashcards
  - Triangle flashcards
  - Ruler
  - Place value mat
  - Base 10 blocks

Warm-Up

Before introducing the lesson topic, spend a few minutes working with your child on the basic facts. Use a flashcard drill or the triangle flashcards (games in Lesson 22).

Ask your child to take out the Lesson 25 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure he or she understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her.

Exploring the Topic

What your child knows about adding large numbers can also help him or her subtract.

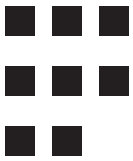
Parent Script:
When you solve subtraction equations that have two or more digits, first you subtract the ones, and then you subtract the tens followed by the hundreds.

Answer these subtraction questions. Remember you subtract the ones first.

67	**29**	**74**	**58**
–34	**–19**	**–41**	**–44**

Now take out your base 10 blocks and place value mat. Using them will help you better understand subtraction.

Use the base 10 blocks to make 857 on your place value mat. It should look like this.

Hundreds (100)	Tens (10)	Ones (1)
		

Take away 544.

Circle the blocks that are to be subtracted. How many do you have left?

When you take away 544, you have 3 hundreds, 1 ten and 3 ones left.

Try this equation.

568 – 362 =

Hundreds (100)	Tens (10)	Ones (1)
		

Again circle the blocks that are to be subtracted.

Did you notice that all the tens have been taken away? When you have 0 tens, you need to write a 0 in the tens place. It acts as a place-holder to show that there are 0 tens.

The answer to the subtraction equation is written as **206**.

It's Your Turn

Have your child look at this section on the Lesson 25 Practice Sheet. He or she will need the place value mat and base 10 blocks for the first set of questions. To make sure your child understands each set of activity directions help him or her to complete the first question in each of the sets. Then ask your child to complete the rest of the work independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You will find the answers in the Answer Key.

Lesson 26
Estimating to Subtract

In this lesson, your child will learn how to use estimation to help solve subtraction problems.

What You Need

- Practice sheets
- Teaching Aids
  - Subtraction flashcards
  - Ruler
  - Calculator

Warm-Up

If your child does not yet have automatic recall, spend a few minutes working on the basic facts for subtraction. Ask your child to take out the Lesson 26 Practice Sheet and complete the Warm-up activity. Read the directions with your child and complete one or two questions with him or her. This will ensure he or she understands what is required to complete the activity. Your child may use counters or a number line if she or does not yet have automatic recall of basic facts.

When your child has completed the activity, correct it with him or her.

Exploring the Topic

Guessing or estimating is an important math skill. It is something that adults use frequently in their daily lives.

> **Parent Script:**
> Good estimation skills are important in your everyday life. Often you want to know things such as ***about how many***, ***approximately how far***, and ***close to what***.
>
> Estimating, or making careful guesses, is also important when you are working on subtraction questions such as 71 – 32. You can estimate the difference 70 – 30 = 40 quickly in your head.

The exact answer is 39 so your estimate tells you that you must have a fairly reasonable answer.

Two things that help to make you a good estimator are:

- you know your basic facts.
- you can round numbers to the nearest 10 and 100. Remember numbers ending in 0, 1, 2, 3, 4 round down. Numbers ending in 5, 6, 7, 8, and 9 round up.

Show me how you can round each of these numbers to the nearest 10. Then estimate the answer.

238
–173

If your child has forgotten how to round, help him or her round 238 to 240 and 133 to 130. Discuss why one number is rounded up and one is rounded down. *(the difference is 110)*

Parent Script:
Now round these numbers to the nearest ten and estimate the answers. Do the work right beside each question.

581	**676**
–54	**–327**

(The estimated answers you are looking for:

580	*680*
–50	*–330*
530	*350*

Well done, now you are ready to round to the nearest hundred.

When you round to the nearest 100, remember that all numbers from 0 to 49 round down and all number ending in 50 to 99 round up. Look at these examples:

907 rounds down to 900

577 rounds up to 600

Round each number to the nearest hundred and estimate the answer. Show your work beside each subtraction problem.

321	_____	**634**	_____
–95	– _____	**–387**	– _____

(Your child should show correct rounding and the estimated answers of 200 and 200.)

If your child can round to the nearest ten and hundred, he or she is ready to move to the next section of the lesson.

It's Your Turn

Have your child look at this section on the Lesson 26 Practice Sheet. To make sure your child understands the activity directions help him or her to complete the first question. Now ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Your child has learned a number of strategies that help when he or she is solving subtraction problems. The strategy taught in this section can be done with a calculator. Ask your child to finish the lesson by completing the **Challenge Yourself** activity. You will find the answers in the Answer Key.

Lesson 27
Subtracting 2-Digit Numbers with Regrouping

In this and future lessons your child will learn and/or review how to subtract using regrouping or trading. Make sure that he or she now has automatic response of the subtraction basic facts.

What You Need

- Practice sheets
- Teaching Aids
  - Place value mat
  - Base 10 blocks
- Computer

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 27 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure he or she understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of the book.

Exploring the Topic

Your child has already been introduced to the concept of regrouping, but many children have a poor understanding of the process when it relates to subtraction. By using the base 10 materials to begin subtraction, your child should develop a good understanding of the process.

Parent Script:
When you subtract large numbers, regrouping or trading the tens and ones can make it easier for you to find the answer.

Take out your base 10 blocks and place value mat. Now listen to this problem as I read it to you.

> *Mrs. Black rides an exercise bike for 45 minutes each day. Today she has been riding for 28 minutes. How much longer does she have to ride?*

You know that you have to subtract to find out **how much longer** she needs to ride. Your equation looks like this.

$$\begin{array}{r} 45 \\ -28 \\ \hline \end{array}$$

Look at the numbers in the ones place. You can see that you can't subtract 8 from 5. Let's use the base 10 blocks to help.

Put 45 blocks on the place value mat. (4 tens and 5 ones)

Good, now your mat looks like this.

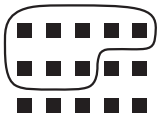
Hundreds (100)	Tens (10)	Ones (1)
		

Because you can't take away 8 from 5, you need to trade 1 ten for 10 ones.

Hundreds (100)	Tens (10)	Ones (1)
		

Do you still have 45 blocks? (If your child isn't sure ask him or her to count them.)

Now you can take 28 away very easily. Use your blocks to do that.

Hundreds (100)	Tens (10)	Ones (1)
		

How many blocks do you have left?

What number do you need to answer? *Mrs. Black has to ride her bike for _____ minutes longer. (17 minutes)*

Good work, let's try some more subtraction problems.

Have your child follow the same steps on the place value mat to solve the following:

51	**65**	**37**	**50**
–29	**–17**	**–8**	**–37**

If your child can solve each of the problems by trading 1 ten for 10 ones and then subtracting, ask him or her to solve some problems independently.

It's Your Turn

Have your child look at this section on the Lesson 27 Practice Sheet. Make sure your child uses the base 10 blocks and place value mat to solve the subtraction problems. Help him or her to complete the first question. Now ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Give your child some computer time on one or more of the subtraction Web sites listed in Part 1.

Lesson 28
Subtraction to 100 with Regrouping

Today's lesson moves from the base 10 blocks to pictures of tens and one charts, used as a tool when subtracting with regrouping. If your child experiences any difficulties, he or she may return to the use of base 10 blocks.

What You Need

- Practice sheets
- Teaching Aids
  - Place value mat
  - Base 10 blocks

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 28 Practice Sheet and complete the Warm-up activity. This is a timed exercise. Read the directions with your child to ensure he or she understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. Discuss your child's ability to work on basic fact questions more quickly and accurately. Answers are in the Answer Key at the back of this book.

Exploring the Topic

Parent Script:
We're going to work on more subtraction questions where you have to trade tens and ones, but this time you will use printed charts to help you the answers.

On this kind of chart you are going to show your trade using a pencil instead of base 10 blocks. Here is an example that shows you how to do this.

Move a ten to the ones column

Now there are 4 tens left

T	O
~~5~~ 4	13
– 2	8
2	5

Trading a ten makes this 13

4 – 2 = 2

13 – 8 = 5

Sometimes this is called borrowing a ten. Now it's your turn to answer these questions. Will you have to trade in all of them?

T	O
4	1
– 2	3

T	O
5	5
– 2	7

T	O
7	4
– 3	6

T	O
2	6
– 1	9

If your child is able to regroup and subtract without help from you, he or she is ready to work independently. If your child continues to have difficulty with the concept of regrouping, use the base 10 blocks and place value mat to work on a new set of subtraction questions. The questions should use two digit numbers only. (Example: 42 – 28 =)

When your child is ready, have him or her solve two digit subtraction questions using a pencil and tens/ones charts. When your child can show that he or she understands regrouping at this level, he or she is ready to complete the independent activity.

It's Your Turn

Have your child look at this section on the Lesson 28 Practice Sheet. Make sure your child understands the activity directions before he or she completes this section independently.
When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You will find the answers in the Answer Key.

Lesson 29
Checking Your Work

What You Need

- Practice sheets
- Teaching Aids
  - Subtraction flashcards
  - Calculator

Warm-Up

Spend a few minutes playing a subtraction game or flash the subtraction basic facts flashcards with your child. Your child should now be able to recall the basic facts with speed and accuracy.

Ask your child to take out the Lesson 29 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure he or she understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

Exploring the Topic

Parent Script:
You have already learned one way to check your answers. Today, you are going to learn other ways to make sure you have the correct answers to addition and subtraction questions.

1. Using a Calculator

Parent Script:
Take out your calculator. When you use a calculator to check your work, you must push each key carefully. If you hit the wrong key, you will end up with an incorrect answer.

When you **add** you push the plus (+) key after you enter each number. Then you push the equal key (=) key to get the total.

Use your calculator to check these answers. Write the correct answer under the sums that are incorrect.

43	369	4600	46 934
7	+ 558	+ 5091	+ 5 352
58	917	9691	52 285
+ 12			
110			

Good work!

When you **subtract** you push the minus (–) key after you enter the first number. After you enter the second number, you push the equal key (=) key to find the difference.

Use your calculator to check these answers. Write the correct answer under the differences that are incorrect.

56	93	367	5674	46 934
– 34	– 81	– 214	– 344	– 15 501
22	2	153	5430	60 501

2. Using the Opposite Operation

Parent Script:
You know that addition and subtraction facts are grouped in fact families. You can use the opposite operation to check your answers.

How could you find out if 7 + 8 = 15 is correct? Yes, you could subtract. Subtract to check this answer.
(15 – 8 = 7 or 15 – 7 = 8)

This also works for subtraction. To find out if 17 – 9 = 8 is correct, you add 8 + 9. If the answer is the same as the first number in the subtraction question, it is correct. You can also check your answers when you are using larger numbers.

For example:

46
+39 **(**addend)
85 **(**sum or total)

- Write the total 85
- Subtract the addend −39
- This number is the same **46**
  as the first number in the original question.

Now you know the total—85—is the correct answer.

To check subtraction questions, you add the last two numbers of the equation.

For example:

87
−38
49

You add

49
+38
87

The answer to the subtraction question is correct.

3. Estimation

Parent Script:
The third way to check your work is to estimate. When you estimate, you decide if the answer makes sense or not.

For example:

54	Round down to	50
+38	Round up to	+40
92	Add	90

The estimate is close so the answer is probably correct.

If your answer is not close, you need to check your work with a calculator or by using the opposite operation.

Now it's time for you to practice each of the ways you've learned to check answers.

It's Your Turn

Have your child look at this section on the Lesson 29 Practice Sheet. To make sure your child understands what he or she is being asked to do. Now ask your child to complete this section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You will find the answers in the Answer Key.

Lesson 30
Review Lesson

What You Need

- Practice sheets

In this lesson your child will complete a set of review questions. There are no Warm-Up, Exploring the Topic, or Challenge Yourself activities.

Before your child begins work on the review questions, make sure he or she understands the subtraction skills and concepts taught in the previous lessons. If you know your child has difficulty with any skill or concept, go back and work on it. Do not give your child the set of review questions until you are confident he or she can complete it successfully.

It's Your Turn

Take out today's Lesson 30 Practice Sheet, a pencil, and an eraser. Give your child a few minutes to look over the review questions. To make sure he or she understands the activity directions for each set of questions, read the directions and work through each sample question with him or her.

The review test is to be completed independently, but your child can take as much time as he or she needs to complete the work. If your child has difficulty answering a question, encourage him or her to move on to the next one. When your child has completed the review, ask him or her to check the answers for any obvious errors and to make the corrections.

Mark the review with your child. The answers can be found in the Answer Key. As you mark your child's work, you may notice a weak skill or concept that needs more practice. Work with your child on the skill/concept before moving on to the next subtraction lesson.

Lesson 31
Subtracting 3-Digit Numbers With One Trade

All trading or regrouping with subtraction follows the same pattern. Be sure that your child clearly understands how trading works with subtraction.

What You Need

- Practice sheets
- Teaching Aids
  - Place value mat
  - Base 10 blocks

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 31 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure he or she understands what is required to complete the activity. The first question has been completed as an example.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

Exploring the Topic

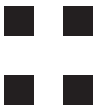
Have your child use the place value mat and base 10 blocks to solve some of today's subtraction problems.

Parent Script:
Today you are going to work on some subtractions problems that have three digits.

Here's the first problem.

$$\begin{array}{r} 451 \\ -137 \\ \hline \end{array}$$

Show 451 on your place value mat.

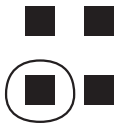
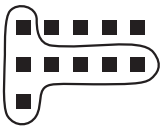
Hundreds (100)	Tens (10)	Ones (1)
		

Try to take away 137. Can you do it?

What do you need to do to subtract the 7 ones? *(trade a ten for 10 ones and add them to the ones)*

Now you have 4 hundreds, 4 tens, and 11 ones.

Take away 137. What do you have left? *(314)*

Hundreds (100)	Tens (10)	Ones (1)
		

Now use your base 10 blocks to solve these subtraction problems.

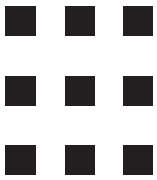
856	**472**
– 529	**– 426**

Sometimes you need to trade the hundreds and the tens to subtract.

Try this subtraction problem.

938
– 654

Use your base 10 blocks to show 938 on your place value mat.

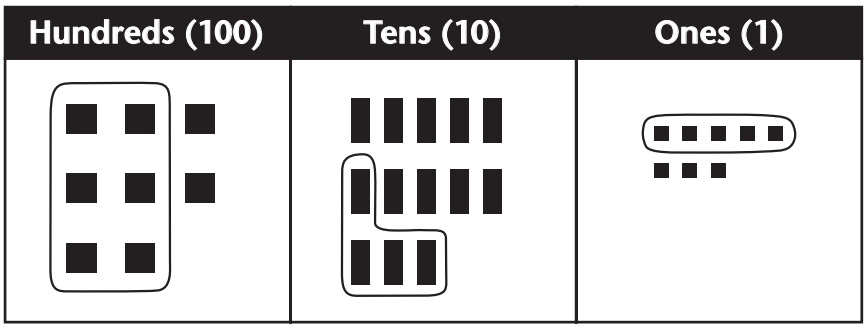
Hundreds (100)	Tens (10)	Ones (1)
		

Can you take away 654 without making a trade?

You don't have enough tens. You have to trade one of the hundreds for 10 tens.

Now what do you have? *(8 hundreds, 13 tens, and 8 ones)*

Take away 654. What is the difference? *(284)*



Use your base 10 blocks to solve these subtraction questions.

618	**427**
– 346	**– 360**

Well done. Put the place value mat and blocks to one side and solve these questions using the HTO charts beside them.

573
– 265

H	T	O

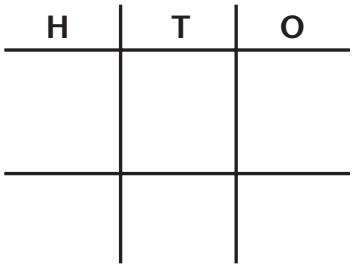
Write the question on the chart. Look at the numbers in the ones column. You can see that you can't take 5 from 3. You will need to trade a ten for 10 ones.

When you take a ten, draw a line through the 7 and above it write a small 6 to show you now have 6 tens.

To show that you have added the 10 to the 3, put a 1 for 1 ten in front of the 3. Now you have 13 ones. You are ready to subtract.

Write this question on the chart.

846
– 394



Look in the ones column first. You can take 4 away from 6 so you don't need to trade. Now look at the tens column. You can't take 90 away from 40 so you will need to trade a hundred for 10 tens,

Show you have traded a hundred by putting a 1 for 100 in front of the 4. Now you have 14 tens. To show you have traded a hundred, draw a line through the 8 and write a small 7 above it.

Now find the difference. Good work.

If your child is not sure of the process, pose a few more subtraction problems and walk him or her through each step of trading. Use either the place value mat and base 10 blocks or HTO charts.

If your child understands the trading process, he or she is ready to work independently on some subtraction problems.

It's Your Turn

Have your child look at this section on the Lesson 31 Practice Sheet. To make sure your child understands the activity directions. He or she will use HTO charts to solve the subtraction questions. Ask your child to complete the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You will find the answers in the Answer Key.

Lesson 32
Another Look at Subtraction with One Trade

All trading with subtraction follows the same pattern. Don't go on until your child understands clearly how trading works with subtraction.

What You Need

- Practice sheets
- Teaching Aids
  - Subtraction flashcards
  - Triangle cards

Warm-Up

Begin today's lesson with a flashcard drill or have your child work with the triangle cards. Ask your child to take out the Lesson 32 Practice Sheet and complete the Warm-up activity. Today's activity is a continuation of last day's. Read the directions with your child to ensure he or she understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

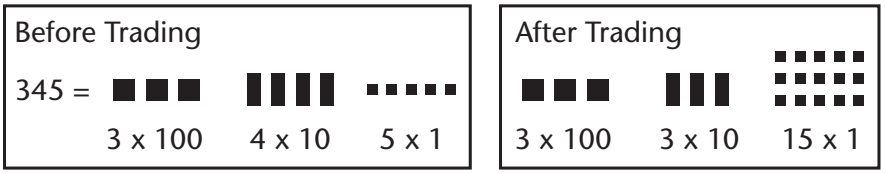
Exploring the Topic

In this lesson your child moves beyond "hands on" and pictorial representation when solving subtraction problems with regrouping (trading). If at any time your child has difficulty with regrouping go back to the use of the place value mat and base 10 blocks.

Parent Script:
Look at this subtraction problem.

$$\begin{array}{r} 345 \\ -\,228 \\ \hline \end{array}$$

You can't subtract 8 from 5 so you need to trade 1 ten from 345 for 10 ones. The 5 ones + 10 more ones equals 15 ones. Look at these illustrations.



Read through and discuss the steps for trading that follow. Draw your child's attention to the way the new tens and ones are written above the original number.

Written 345 ⟶ $\overset{3\ 15}{3\ \cancel{4}\ \cancel{5}}$
3 hundreds + 3 tens + 15 ones

Subtract:
$$\begin{array}{r} 345 \\ -\,228 \\ \hline \end{array}$$

Step 1: Trade
$$\begin{array}{r} \overset{3\ 15}{3\ \cancel{4}\ \cancel{5}} \\ -\,2\,2\,8 \\ \hline \end{array}$$

Step 2: Subtract the Ones
15 – 8 = 7
$$\begin{array}{r} \overset{3\ 15}{3\ \cancel{4}\ \cancel{5}} \\ -\,2\,2\,8 \\ \hline 7 \end{array}$$

Step 3: Subtract the Tens
3 – 2 = 1 ten
$$\begin{array}{r} \overset{3\ 15}{3\ \cancel{4}\ \cancel{5}} \\ -\,2\,2\,8 \\ \hline 1\,7 \end{array}$$

Step 4: Subtract the Hundreds
3 – 2 = 1 hundred
$$\begin{array}{r} \overset{3\ 15}{3\ \cancel{4}\ \cancel{5}} \\ -\,2\,2\,8 \\ \hline 1\,1\,7 \end{array}$$

Now ask your child to look at another example.

Subtract $\begin{array}{r} 76 \\ -\,49 \\ \hline \end{array}$ **Step 1:** Trade $\begin{array}{r} {\scriptstyle 6\ 16} \\ \cancel{7}\,\cancel{6} \\ -\,4\,9 \\ \hline \end{array}$

Ask your child to notice that all of the next numbers have 1 ten traded for 10 ones.

$\begin{array}{r} {\scriptstyle 0\ 18} \\ 3\,1\,8 \end{array}$ $\begin{array}{r} {\scriptstyle 6\ 12} \\ \cancel{7}\,2 \end{array}$ $\begin{array}{r} {\scriptstyle 5\ 15} \\ 6\,6\,5 \end{array}$

Parent Script:
You always have to look and see if you need to trade. You do not always have to trade.

$\begin{array}{r} 848 \\ -\,625 \\ \hline \end{array}$ No trade needed.

$\begin{array}{r} 625 \\ -\,418 \\ \hline \end{array}$ Trade needed. You need to trade 1 ten so that you will have 15 ones. Then you can subtract the 8.

Sometimes you need to trade 1 hundred for 10 tens.

Subtract $\begin{array}{r} 826 \\ -\,574 \\ \hline \end{array}$

Step 1: Trade 1 hundreds for 10 tens. $\begin{array}{r} {\scriptstyle 7\ 12} \\ 8\,\cancel{2}\,6 \\ -\,5\,7\,4 \\ \hline \end{array}$

Step 2: Subtract. $\begin{array}{r} {\scriptstyle 7\ 12} \\ 8\,\cancel{2}\,6 \\ -\,5\,7\,4 \\ \hline 2\,5\,2 \end{array}$

Step 3: Check.

$$\begin{array}{r} {\scriptstyle 7\,12} \\ 252 \\ +\,574 \\ \hline 826 \end{array}$$

Look at two more examples.

$$\begin{array}{r} {\scriptstyle 3\,12} \\ 426 \\ -\,283 \\ \hline 143 \end{array} \qquad \begin{array}{r} {\scriptstyle 5\,18} \\ 687 \\ -\,395 \\ \hline 292 \end{array}$$

Ask your child to trade 1 ten for 10 ones and write each number. His or her work should look like the following example.

264 becomes $\overset{5\,14}{2\,6\,4}$

57 _____ 99 _____ 775 _____

Now ask your child to solve these subtraction problems. Make sure he or she shows the trades.

$$\begin{array}{r} 63 \\ -\,38 \\ \hline \end{array} \qquad \begin{array}{r} 135 \\ -\,49 \\ \hline \end{array} \qquad \begin{array}{r} 269 \\ -\,181 \\ \hline \end{array} \qquad \begin{array}{r} 927 \\ -\,877 \\ \hline \end{array}$$

If your child needs further practice under your guidance, provide him or her with questions similar to those above (trading tens and ones, and trading hundreds and tens).

It's Your Turn

Have your child look at this section on the Lesson 32 Practice Sheet. To make sure your child understands the activity directions help him or her to complete the first question. Now ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You will find the answers in the Answer Key.

Lesson 33
Subtracting 3-Digit Numbers with Two Trades

What You Need

- Practice sheets
- Teaching Aids
  - Place value mat
  - Base 10 blocks

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 33 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure he or she understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

Exploring the Topic

Parent Script:

Sometimes you need to regroup both the tens and the ones.

Take out your place value chart and base 10 blocks to solve this subtraction question.

$$\begin{array}{r} 421 \\ -185 \\ \hline \end{array}$$

Show 421 on the place value mat.

Hundreds (100)	Tens (10)	Ones (1)
■ ■ ■ ■	▮▮	▪

Why can't you take 185 away? Yes, you can see there aren't enough tens or ones.

Here's what you do:

- Look at the ones column. You need more ones. Trade a ten for 10 ones. Now you have 4 hundreds, 1 ten and 11 ones.
- Look at the tens column. You need more tens. Trade one hundred for 10 tens. Now you have 3 hundreds, 11 tens, and 11 ones. You've regrouped or traded two times but you still have 421.
- Now you can take away 185.

What's the difference or answer? *(236)* Good work.

Let's try another question with two trades, but this time, I want you to do the work on the HTO chart. Here's the problem.

$$\begin{array}{r} 723 \\ -\,249 \\ \hline \end{array}$$

Write the numbers on the chart.

H	T	O

Look at the number in the ones column. You can't take 9 away from 3. You will have to trade a ten.

Show you traded a ten for 10 ones by putting a 1 for the ten by the 3. Now you have 13 ones. You took a ten so cross off the 2 in the tens column and write a small 1 above it.

H	T	O
	1	1
7	~~2~~	3
– 2	4	9

Now look at the numbers in the tens column. You can't take 40 away from 10. You need to trade a hundred for 10 tens.

Make the trade. Show the trade by putting a small 1 by the one in the tens column. Cross out the 7 in the hundreds column and write a small 6 above it.

H	T	O
6	11	1
~~7~~	~~2~~	3
– 2	4	9

Now subtract. Well done, the answer is 474.

Solve these two subtraction problems using the HTO charts.

211
–177

H	T	O

444
–286

H	T	O

If your child understands the steps in regrouping and knows that all subtraction begins with the ones, he or she is ready to move on to the independent activity.

If your child has a weak understanding of regrouping, provide him or her with more examples of two trade subtraction questions. Have your child use the place value mat and base 10 blocks or HTO charts to find the answer to each question.

It's Your Turn

Have your child look at this section on the Lesson 33 Practice Sheet. Make sure your child understands the activity directions. He or she will be using HTO charts to answer the questions. Ask your child to complete the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

There is no specific challenge activity in this lesson, but your child is directed to two Web sites, one that provides practice and one that has games.

Lesson 34
Pencil and Paper Subtraction of 3-Digit Numbers with Regrouping

Although your child may have good recall of the basic subtraction facts, review both addition and subtraction facts from time to time.

What You Need

- Practice sheets
- Teaching Aids

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 34 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure he or she understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

Exploring the Topic

Today's lesson is very similar to yesterday's activity, but today your child will subtract using pencil and paper.

Your child will not always make a trade in every question. The reason for this is that your child needs to think about what he or she is doing and not trade automatically. Your child needs to know that **7 – 9** is very different from **9 – 7** and that

$$\begin{array}{r} 127 \\ -119 \\ \hline \end{array}$$

requires trading before subtraction, while

$$\begin{array}{r} 129 \\ -117 \\ \hline \end{array}$$

does not.

This may seem simple to you, but some students don't always see the difference. The order in which you write numbers in subtraction is critical.

Parent Script:
Yesterday you learned that sometimes you need to borrow twice.

Look at this subtraction problem. **623 – 484**

In this lesson you learn to trade or borrow a little differently than in the last lesson. Both ways are good. After today's lesson, choose the one you like the best.

Did you notice that the terms **trade** and **borrow** can be used when you need to regroup in subtraction?

To subtract:

```
  623
 –484
```

Step 1: Borrow ones.

```
   1 13
   6 2 3
 – 4 8 4
```

Step 2: Subtract ones.

```
   1 13
   6 2 3
 – 4 8 4
       9
```

Step 3: Borrow tens.

```
   5 1113
   6 2 3
 – 4 8 4
     3 9
```

Subtract tens.

Step 4: Subtract hundreds.

```
   5 1113
   6 2 3
 – 4 8 4
   1 3 9
```

The difference (answer) is 139.

Let's look at another subtraction question.

Subtract:
$$\begin{array}{r} 834 \\ -398 \\ \hline \end{array}$$

Step 1: Borrow ones.
$$\begin{array}{r} {\scriptstyle 2\,14} \\ 8\not{3}\,4 \\ -\,3\,9\,8 \\ \hline \end{array}$$

Step 2: Subtract ones.
$$\begin{array}{r} {\scriptstyle 2\,14} \\ 8\not{3}\,4 \\ -\,3\,9\,8 \\ \hline 6 \end{array}$$

Step 3: Borrow tens.
$$\begin{array}{r} {\scriptstyle 7\,12\,14} \\ 8\,\not{3}\,4 \\ -\,3\,9\,8 \\ \hline 3\,6 \end{array}$$
Subtract tens.

Step 4: Subtract hundreds.
$$\begin{array}{r} {\scriptstyle 7\,12\,14} \\ 8\,\not{3}\,4 \\ -\,3\,9\,8 \\ \hline 4\,3\,6 \end{array}$$

Now let's see you answer these questions. You have to trade twice in each of them.

1. $\begin{array}{r} 812 \\ -\,87 \\ \hline \end{array}$ 2. $\begin{array}{r} 970 \\ -285 \\ \hline \end{array}$

(Answers: 1. 725, 2. 685—make sure your child shows the trades)

If your child solved the two questions without difficulty have him or her work on the independent activity.

If your child had difficulty, develop questions of your own and help your child work through the steps a few more times. When your child is ready he or she can move to the Lesson Practice Sheet and work on the independent activity.

It's Your Turn

Have your child look at this section on the Lesson 35 Practice Sheet. Make sure he or she understands the activity directions. Ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You will find the answers in the Answer Key.

Lesson 35
Estimating Differences and Subtracting 4-, 5-, and 6-Digit Numbers (With and Without Trades)

This Lesson reviews rounding numbers to the nearest hundred and thousand before subtracting.

What You Need

- Practice sheets

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 35 Practice Sheet and complete the Warm-up activity. Make sure your child can understand the strategies mentioned in the first part of the activity. Then read both sets of directions with your child to ensure he or she understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

Exploring the Topic

In an earlier lesson your child learned that finding the difference between numbers does not always mean the numbers have to be exact.

Parent Script:
The following problems are examples where estimated answers can be used.

Work through the first problem with me.

A. Mrs. Allen's class wanted to visit the Queen Charlotte Islands. The class needed to raise $8175. The students made $2050 through their recycling program.

   Mrs. Allen asked the students to estimate how much they still needed for the trip to the Queen Charlotte Islands.

The students rounded the two numbers to the nearest 100.

They **rounded** $8175 to $8200

$2050 to $2100

They subtracted $6100

The class needed about $6100 more for the trip.

Then Mrs. Allen asked exactly how much the class still needed to raise.

You subtract to find the answer.

$8175
– 2050

Now finish the sentence answer.

The class needed exactly _____ more.

Now work through this problem with me.

B. An airplane's control panel gives its altitude as 2375 m. It descends until the panel shows an altitude of 1984 m. The pilot informs his passengers that they have descended about how many metres?

He **rounded** 2375 to 2400

1964 to 2000

He mentally subtracts to find the answer. 400

He tells his passengers the plane has descended **about** 400 m.

The estimation of larger numbers is calculated in the same way, only you use rounding to the nearest **1000**.

For example: 43 856 – 26 794 can be rounded to 44 000 – 27 000

When finding the difference, you can mentally subtract 27 from 44 to find 17 and then add on the 3 zeros to find the answer of 17 000.

You must always consider whether an estimate will do in your answer or whether an exact answer is needed.

As I read each question to you, tell me if you think it needs an **exact** answer or an **estimate**.

- The number of people in your community?
- How much money you were owed for doing some work?
- The distance between two cities?
- How fast you can run 100 metres?

Good work!

(Answers: estimate, exact, estimate, exact)

Take out today's Practice Sheet and I will help you solve a few rounding questions before you begin work by yourself.

It's Your Turn

Have your child look at this section on the Lesson 35 Practice Sheet. To make sure your child understands the activity directions help him or her to complete the first question. Now ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. Your child may need a little help to complete this activity. You will find the answers in the Answer Key.

Lesson 36
Subtracting 4-Digit Numbers With Trading

Today your child will learn to subtract with three trades.

What You Need

- Practice sheets
- Teaching Aids
  - Place value mat
  - Base 10 blocks
- Sheet of paper

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 36 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure she or he understands what is required to complete the activity. He or she may use the place value mat and base 10 blocks to help find the answers.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

Exploring the Topic

Parent Script:

Look at this question.

$$\begin{array}{r} 5146 \\ -\,3758 \\ \hline \end{array}$$

The ones, tens, and hundreds in the top set of digits all need to be regrouped. You already know how to make two trades so now you need to take one step further to the thousands place. If you need extra hundreds, you can trade 1 thousand for 10 hundreds.

This is one way to subtract with three trades. Let's see how it's done.

Trade 1 ten for 10 ones. Subtract the ones. $\begin{array}{r} {\scriptstyle 3\ 16} \\ 5146 \\ -3758 \\ \hline 8 \end{array}$	Trade 1 hundred for 10 tens. Trade 1 thousand for 10 hundreds. $\begin{array}{r} {\scriptstyle 4\ 10\ 13\ 16} \\ 5146 \\ -3758 \\ \hline 8 \end{array}$	Subtract the tens. Subtract the hundreds. Subtract the thousands. $\begin{array}{r} {\scriptstyle 4\ 10\ 13\ 16} \\ 5146 \\ -3758 \\ \hline 1388 \end{array}$

Now let's work together to solve this problem. Read the problem to me.

> The Timberwolves Soccer team attracted 2697 fans to its first home game. The game was so exciting 4126 fans attended the second home game. How many more fans went to the Timberwolves' second game?

What do you have to do to find the answer?

Subtract: $\begin{array}{r} 4126 \\ -2697 \\ \hline \end{array}$

In the regrouping example above you regroup the tens and hundreds before you subtract. In this example you make a trade and then subtract. You can choose either method when you are working independently.

Step 1: Trade for ones and subtract ones.

$$\begin{array}{r} {\scriptstyle 1\ 16} \\ 4126 \\ -2697 \\ \hline 9 \end{array}$$

Step 2: Trade for tens and subtract tens.

$$\begin{array}{r} {\scriptstyle 0\ 11\ 16} \\ 4126 \\ -2697 \\ \hline 29 \end{array}$$

Step 3: Trade for hundreds
and subtract hundreds.

$$\begin{array}{r} {\scriptstyle 3\ 10\ 11\ 16} \\ \not{4}\ \not{1}\ \not{2}\ \not{6} \\ -2\ 6\ 9\ 7 \\ \hline 4\ 2\ 9 \end{array}$$

Step 4: Subtract thousands.

$$\begin{array}{r} {\scriptstyle 3\ 10\ 11\ 16} \\ \not{4}\ \not{1}\ \not{2}\ \not{6} \\ -2\ 6\ 9\ 7 \\ \hline 1\ 4\ 2\ 9 \end{array}$$

When you are trading always show your work so I can find any problems you may have.

How could you check your work to see if it's correct? *(addition, using a calculator)*

Take out a sheet of paper and write down the following subtraction question. Line up the digits

8216 – 4574 =

Show all the trades you must make.

Your child's work should look like this:

$$\begin{array}{r} {\scriptstyle 7\ 11\ 11\ 1} \\ \not{8}\ \not{2}\ \not{1}\ 6 \\ -4\ 5\ 7\ 4 \\ \hline 3\ 6\ 4\ 2 \end{array}$$

← Show trading.

If your child solved the subtraction question without your assistance, he or she is ready to move to the independent practice.

If your child is having difficulty with the steps, give him or her a few more subtraction examples to work on. Draw THHTO charts for him or her to use. When your child has grasped the concept of three trades, ask him or her to work on the independent activity.

It's Your Turn

Have your child look at this section on the Lesson 36 Practice Sheet. To make sure your child understands the activity directions, read them with him or her. Ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You need an Internet connection for today's Challenge.

Lesson 37
Finding Differences with Larger Numbers

What You Need

- Practice sheets
- Sheet of paper

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 37 Practice Sheet and complete the Warm-up activity. Today, the activity is another subtraction strategy similar to those your child knows. Read the directions with your child to ensure she or he understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

Exploring the Topic

Parent Script:

Exact answers are often needed in situations where you need to find the difference between two larger numbers. Think about this example.

> A baseball tournament at the City Stadium drew total crowds of 27 653 people over 2 days. The ticket manager knows the ticket sales on the first day were 16 398. How many people does he know attended on the second day without having to check his sales records?

Here's what he would do:

He thinks:	27 653	people in total.
He subtracts:	16 398	for those attending the first day.
He knows	11 255	people attended the second day.

Let's review the regrouping that is needed in this subtraction question.

$$\begin{array}{r} \scriptstyle 4\;13 \\ 2\,7\,6\,5\,3 \\ -\,1\,6\,3\,9\,8 \\ \hline 5 \end{array}$$

1 ten is traded for 10 ones (leaving 4 tens and creating 13 ones).

$$\begin{array}{r} \scriptstyle 5\;14\;13 \\ 2\,7\,6\,5\,3 \\ -\,1\,6\,3\,9\,8 \\ \hline 1\,1\,2\,5\,5 \end{array}$$

1 hundred is traded for 10 tens (leaving 5 hundreds and creating 14 tens).

Now we'll read this problem together but I want you to do the calculations on a sheet of paper. You are to show all your trades.

> Mrs. Jensen earned $35 439 in 1989 and $44 329 in 1990.
>
> Exactly how much more did she earn in 1990 than in 1989? *($8890)*

If your child could make the trades and subtract correctly, he or she can go on to the independent activity.

If your child continues to have difficulty with the trades, give him or her more guided practice. If your child does not have automatic recall of the basic facts, spend enough time working on them with him or her to ensure that he or she knows and can recall all the basic facts. When your child is ready, ask him or her to move to the independent activity.

It's Your Turn

Have your child look at this section on the Lesson 37 Practice Sheet. To make sure your child understands the activity directions help him or her to complete the first question. Now ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

Ask your child to finish the lesson by completing this activity. You will find the answers in the Answer Key.

Lesson 38
Subtracting Across Zeroes

Trading across zeros has often been a difficult concept for students. Make sure your child has all the practice he or she needs to understand this concept.

What You Need

- Practice sheets
- Sheet of paper
- Teaching Aids
  - Place value mat
  - Base 10 blocks

Warm-Up

Before introducing the lesson topic, ask your child to take out the Lesson 38 Practice Sheet and complete the Warm-up activity. Read the directions with your child to ensure she or he understands what is required to complete the activity.

When your child has completed the activity, correct it with him or her. You will find the answers in the Answer Key at the back of this book.

Exploring the Topic

In this lesson your child will perform some mathematical magic. He or she will trade for something when there is nothing there. There must, however, always be a number to trade from.

Work through each step of the following problem with your child. Make sure he or she understands each step of the trading process.

Parent Script:

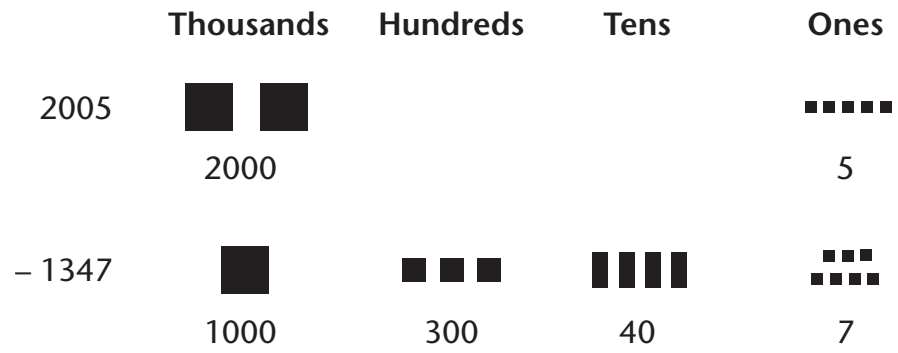
Today you will learn to make trades across zeros. You will have to work carefully through each step and be sure you have the right idea before you begin work on your own.

We'll start with this problem. Read it aloud to me.

> Mr. Dawson and his family packed 2005 bales of hay into his barn for cattle food over the winter. On December thirty-first he counted 1347 bales. How any bales of hay had been eaten?

You need to look at this subtraction question carefully.

Here is the question 2005 – 1347 shown using base 10 blocks.

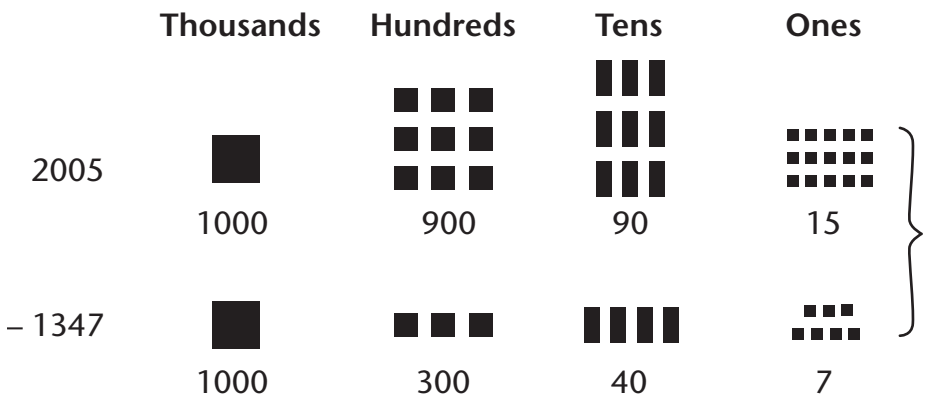


We need to trade tens and hundreds, but there are none, so we trade 1 thousand.

We don't want to trade 1 thousand for 1000 ones.

We need 10 ones so that leaves 9 tens and 9 hundreds or

Now the diagram looks like this after trading.



It's shown differently, but it still equals 2005.

We write and subtract.

Step 1: Trade 1 thousand for 9 hundreds, 9 tens and 10 ones.

$$\begin{array}{r} {}^{1}{}^{9}{}^{9}{}^{15} \\ 2005 \\ -\,1347 \\ \hline \end{array}$$

Step 2: Subtract.

$$\begin{array}{r} {}^{1}{}^{9}{}^{9}{}^{15} \\ 2005 \\ -\,1347 \\ \hline 658 \end{array}$$

Step 3: Check.

$$\begin{array}{r} {}^{1}{}^{1}{}^{1} \\ 1347 \\ +\,658 \\ \hline 2005 \end{array}$$

658 bales of hay were eaten.

Now I want you to follow through the steps as we complete more subtracting across zeros.

Subtract: 200 – 144

$$\begin{array}{r} 200 \\ -144 \\ \hline \end{array} \qquad \begin{array}{r} {\scriptstyle 1\ 9\ 10} \\ 2\not{0}\not{0} \\ -144 \\ \hline 56 \end{array} \qquad \text{Check:} \qquad \begin{array}{r} {\scriptstyle 1\ 1} \\ 144 \\ +56 \\ \hline 200 \end{array}$$

Subtract: 4000 – 1225

$$\begin{array}{r} {\scriptstyle 3\ 9\ 9\ 10} \\ 4\not{0}\not{0}\not{0} \\ -1225 \\ \hline 2775 \end{array} \qquad \text{Check:} \qquad \begin{array}{r} {\scriptstyle 1\ 1\ 1} \\ 1225 \\ +2775 \\ \hline 4000 \end{array}$$

Subtract: 4007 – 1883

$$\begin{array}{r} 4007 \\ -1883 \\ \hline \end{array} \qquad \begin{array}{r} {\scriptstyle 3\ 9\ 10} \\ 4\not{0}0\not{7} \\ -1883 \\ \hline 2124 \end{array} \qquad \text{Check:} \qquad \begin{array}{r} {\scriptstyle 1\ 1} \\ 1883 \\ +2124 \\ \hline 4007 \end{array}$$

Checking by addition is very important in this lesson. Always use checking when money is involved.

For example:

$$\begin{array}{r} {\scriptstyle 6\ 9\ 10} \\ \$7\not{0}.0\not{0} \\ -58.70 \\ \hline \$11.30 \end{array} \qquad \text{Check:} \qquad \begin{array}{r} {\scriptstyle 1\ 1} \\ \$11.30 \\ +58.70 \\ \hline \$70.00 \end{array} \qquad \begin{array}{r} {\scriptstyle 7\ 9\ 10} \\ \$8\not{0}.0\not{8} \\ -37.85 \\ \hline \$42.23 \end{array} \qquad \text{Check:} \qquad \begin{array}{r} {\scriptstyle 1\ 1} \\ \$42.23 \\ +58.70 \\ \hline \$80.08 \end{array}$$

If it appears your child may have difficulty trading across zeros, have him or her use the place value mat and base 10 blocks instead of paper and pencil.

Parent Script:
Take out a sheet of paper. Show me how you can rewrite these numbers showing the trades.

802	7 9 12 8 0 2
3008	2 9 9 18 3 8 0 8

Good work.

Now subtract these questions. Show your trading and the addition questions that check your work.

8104 −3058	4002 −674

Answers:

0 9 14 8 1 0 4 −3 0 5 8 5 0 4 6	5046 +3058 8104	3 9 9 12 4 0 0 2 − 6 7 4 3 3 2 8	3328 + 674 4002

Guide your child through the process. If he or she can trade across the zeros without difficulty ask him or her to move to the independent practice.

If your child is having difficulty, use the place value chart and base 10 numbers. Provide your child with a few more practice samples similar to the ones above, and help him or her work out the answers with the blocks. Don't allow him or her to move on to the independent practice until your child can do the regrouping with understanding.

It's Your Turn

Have your child look at this section on the Lesson 38 Practice Sheet. To make sure your child understands the activity directions help him or her look at the examples or complete the first question. Now ask your child to complete the rest of the section independently.

When your child has completed this section, mark his or her work. Help your child to do any needed corrections.

Challenge Yourself

There is no challenge activity in this lesson. You may wish to have your child go to a regrouping Web site that has questions and answers about regrouping. The address is:
http://mathforum.org/library/drmath/sets/select/dm_borrow.html

Lesson 39
Review Lesson

What You Need
- Practice sheets

In this lesson your child will complete a set of review questions. There are no Warm-Up, Exploring the Topic, or Challenge Yourself activities.

Before your child begins work on the review questions, make sure he or she understands the subtraction skills and concepts taught in Lessons Thirty-one to Thirty-eight. If you know your child has difficulty with any skill or concept, go back and work on it. Do not give your child the set of review questions until you are confident he or she can complete it successfully.

It's Your Turn
Take out today's Lesson Practice Sheet, a pencil, and an eraser. Give your child a few minutes to look over the review questions. Read the activity directions with your child so he or she understands what to do in each part.

The review test is to be completed independently, but your child can take as much time as he or she needs to complete the work. If your child has difficulty answering a question, encourage him or her to move on to the next one. When your child has completed the review, ask him or her to check the answers for any obvious errors and to make the corrections.

Mark the review with your child. The answers can be found in the Answer Key. As you mark your child's work, you may notice a weak skill or concept that needs more practice. Work with your child on the skill/concept before he or she takes the Mastery Test.

Mastery Test

Today your child will complete a Mastery Test. The questions on this test will cover the skills and concepts that have been taught in this package. If you feel your child is not ready to take the test, make sure you review any skills or concepts your child may be still have difficulty understanding before you administer it. Do not give your child this test unless you are confident he or she can complete it successfully.

Note: Your child will need more than one sitting to complete this test.

Take out the Mastery Test on the following pages and place it in front of your child. Explain to him or her that the test needs to be completed independently. Encourage your child to take a few moments to look over the questions. Ask your child if he or she understands what is expected. Give your child as much time as he or she needs to complete the test. If you see your child having any difficulty answering a question, tell him or her to leave that question and move on to the next one. When your child has completed all of the questions, encourage him or her to look over the work for any errors that may have been made. Mark the test with your child.

As you mark the test you will see the concepts or skills your child still has difficulty mastering and will need more practice. Make sure your child reviews these skills or concepts before moving on to the next Mathematics package.

Mastery Test—

Part A

Write the value for the underlined digit in the following numbers. Write the value in numbers rather than words.

1. 603 <u>7</u>10

2. 3<u>9</u>2 557

3. 8<u>7</u>6 327

4. 90<u>9</u> 587

Part B

Round each number to the nearest: 10 100 1000

1. 8926	_____	_____	_____
2. 6438	_____	_____	_____
3. 1499	_____	_____	_____
4. 19 281	_____	_____	_____
5. 81 111	_____	_____	_____

Part C

1. a. Estimate the following sums by rounding to the nearest 100.

1.	2.	3.
420	231	7894
261	880	4986
+854	+500	+8921

b. Estimate the following sums by rounding to the nearest 1000.

1.	2.	3.
3844	32654	48768
2065	48976	122509
+3787	+85609	+ 30127

Part D

Write the expanded form numbers in standard form (*Hint:* Arrange the numbers first according to their values.)

1. _____

50 000	4	6000
	400 000	
400		20

2. _____

6		4000
	900 000	
800	70	30 000

3. Write the expanded form of these numbers.

   a. 384 019 _____

   _____

   b. 762 500 _____

   _____

Part E

Write the following as numerals.

1. forty-three thousand three hundred sixty-four

   _____

2. one hundred eighty-two thousand three hundred fifty-six

   _____

3. seven hundred six thousand fifty-two

   _____

4. nine hundred forty thousand eight hundred one

   _____

5. seven hundred nine thousand

   _____

6. fifty thousand two hundred eighty-nine

   _____

7. four hundred thousand fifty

_____

8. six hundred thousand

_____

Part F

A. **Increase** the following numbers by the amounts shown.

1. 145 926—two _____
2. 389 000—six hundreds _____
3. 15 034—four hundreds _____
4. 2999—one _____

B. **Decrease** the following numbers by the amount shown.

1. 84 986—sixty _____
2. 700 000—three ten thousands _____
3. 960 000—three ten thousands _____
4. 428 000—one hundred _____

Part G

Find the answers to the following problems. Show your work. Remember to write your statement answer.

1. Tanya and her friend's camping trip last summer cost $265.34 for food, $68.50 for gas, $105.00 for campsite rental, $48.50 for a canoe rental, and $21.55 for fishing licenses. What were their total expenses?

Statement: _____

_____

2. The Canton family needs to know the combined weight of their group. They want to check whether they exceed the weight limit of 350 kg for a small boat they wish to ride in at the lake. Ann weighs 45 kg and her sister, Susan, 30 kg. Their brother Joe weighs 59 kg, their father 89 kg, and his brother 82 kg. Can they safely board this boat? Use subtotals to calculate your answer.

Statement: _____

_____

2. Mrs. Fisher was given $150.00 to purchase some supplies for the Girl Guide weekend campout. She spent $98.36 on groceries, $19.29 on craft supplies, $13.20 on prizes, and $9.99 on flashlight batteries. Was she owed money by the Girl Guide fund or did she need to pay back any extra? Use subtotals to calculate your answer.

Statement: _____

_____

Part H

Add the following numbers.

1. 64
   38
   92

2. 56
   84
   39
   6

3. 72
   38
   49
   86

4. 638
   420
   918
   264

5. $7.85
   9.19
   3.16
   2.21

Part I

A. Complete the fact families by writing the related facts.

1. 8 + 5 = 13

_____

_____

_____

2. 17 – 8 = 9

_____

_____

_____

B. Complete each set of equations.

1. 14 – 8 =

24 – 8 =

34 – 8 =

44 – 8 =

2. 12 – 5 =

62 – 5 =

72 – 5 =

82 – 5 =

Part J

Subtract. Trade when necessary and show all your work.

1. 85	2. 564	3. 926	4. 563	5. 54
–32	–382	–341	–281	–27
6. 38	**7. 10 306**	**8. 18 312**	**9. 172**	**10. $8.80**
–19	–2568	–9264	–76	–.60

11.	12.	13.	14.	15.
2967	5019	8624	2400	9000
–423	–467	–7999	–1645	– 87

16.	17.	18.	19.	20.
60 521	64903	$763.51	29 635	21 416
–43 291	–17 621	–291.26	–19 281	–17 219

Part K

A. Estimate the answers to the following questions by rounding to the nearest 100.

1.		2.		3.	
7825	_____	5836	_____	6415	_____
–3610	_____	–4192	_____	–3905	_____

B. Estimate the answers to the following questions by rounding to the nearest 1000.

1.		2.	
79 814	_____	93 216	_____
–52 629	_____	–80 371	_____

3.		4.	
46 345	_____	78 051	_____
–7917	_____	–52 629	_____

Part L

Check the following subtraction answers by reversing the order of the numbers and adding. Circle the incorrect answers. Show all your work.

1. $\begin{array}{r} 284 \\ -189 \\ \hline 96 \end{array}$

2. $\begin{array}{r} 7640 \\ -3912 \\ \hline 3728 \end{array}$

3. $\begin{array}{r} 9915 \\ -8477 \\ \hline 1538 \end{array}$

4. $\begin{array}{r} 3845 \\ -1995 \\ \hline 1850 \end{array}$

5. $\begin{array}{r} 2189 \\ -1632 \\ \hline 657 \end{array}$

6. $\begin{array}{r} 7052 \\ -4991 \\ \hline 2061 \end{array}$

7. $\begin{array}{r} 81306 \\ -79312 \\ \hline 1994 \end{array}$

8. $\begin{array}{r} 41191 \\ -10843 \\ \hline 30448 \end{array}$

Part M

Before solving these problems, think of the key words and phrases in the problems. Read each problem carefully. Show all your work and include a sentence answer.

1. A one-way plane ticket from Seattle to Hawaii is advertised at $362. A return trip cost $39 less each way. How much will the return trip cost?

Statement: _____

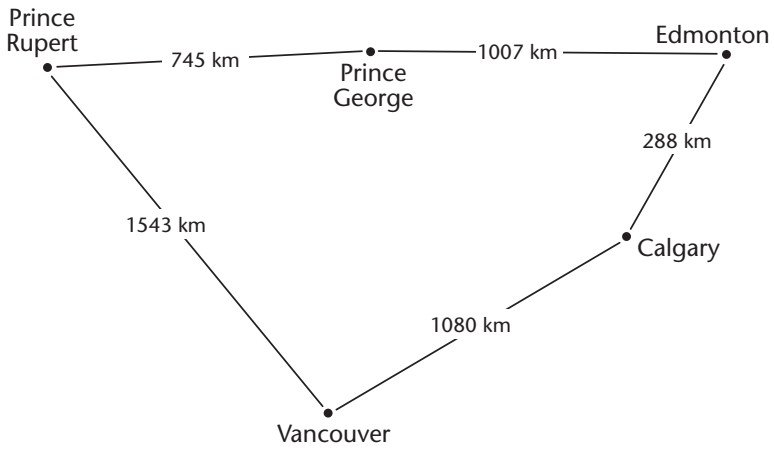
_____

2. Stephanie and her friend planned to drive to a city which was 2895 km away. On the first day they drove 435 km and on the second, 398 km. How much farther do they have to travel to reach their destination?

Statement: _____

_____

3. Look at the following map showing distances between cities.



a. How much farther is Vancouver from Prince Rupert than Calgary?

Statement: _____

_____

b. How much shorter is the distance between Edmonton and Calgary than Edmonton and Prince George?

Statement: _____

_____

Part 2
Subtraction

Practice Sheets

Lesson 22
Subtraction—Separating and Comparing Numbers

It's Your Turn

1. Ask your parent to time you as you complete these questions.

14 – 6 =	18 – 9 =	12 – 8 =
15 – 7 =	9 – 6 =	8 – 3 =
11 – 9 =	10 – 5 =	17 – 12 =

If you could answer these in 30 seconds or less, you've done very well.

2. Again, ask your parent to time you as you complete these questions.

17 – 9 =	15 – 9 =
7 – 4 =	10 – 4 =
10 – 5 =	19 – 13 =
11 – 8 =	18 – 8 =
12 – 6 =	15 – 8 =

Could you answer these questions more quickly? Good try.

Lesson 23
Counting Back and Fact Families

Warm-Up

See how quickly you can answer the following subtraction questions. You can use counters if you need help.

9 – 4 =	8 – 3 =	6 – 3 =
5 – 0 =	7 – 4 =	10 – 5 =
11 – 5 =	18 – 10 =	15 – 4 =
14 – 6 =	13 – 7 =	8 – 4 =
20 – 9 =	17 – 9 =	12 – 5 =
19 – 9 =	9 – 2 =	16 – 8 =

It's Your Turn

A. Count back on a number line (your ruler) to answer the following questions.

10 – 8 =	13 – 5 =	18 – 6 =	6 – 5 =	15 – 7 =
14	12	17	16	11
–6	–5	–9	–9	–3

B. You already know the doubles addition facts. Knowing these will help you answer the following questions.

12 – 6 =	18 – 9 =	14 – 7 =
10 – 5 =	16 – 8 =	20 – 10 =

C. Complete the fact families by writing the related subtraction facts.

Example: 9 + 7 = 16 7 + 9 = 16
16 – 9 = 7 16 – 7 = 9

7 + 8 = 15	8 + 7 = 15	_____	_____
5 + 7 = 12	7 + 5 = 12	_____	_____
2 + 9 = 11	9 + 2 = 11	_____	_____
8 + 4 = 12	4 + 8 = 12	_____	_____
9 + 8 = 17	8 + 9 = 17	_____	_____

Challenge Yourself
Circle the correct answer for each problem.

1. Which number means 6000 + 50 + 9?

   a. 659
   b. 6059
   c. 6509
   d. 60 509

2. There are about 1850 kinds of beetles in the world. What does the 8 stand for in

   a. 1850?
   b. 8 thousands
   c. 8 hundreds
   d. 60 5098 tens
   e. 8 ones

3. Which number is equal to (9 x1000) + (3x100) + (7x1)?

   a. 937
   b. 9037
   c. 9307 73 Douglas Street
   d. 9370

4. Which address is an odd number?

   a. 96 Main Street
   b. 48 Scott Avenue
   c. 20 Union Street
   d. 73 Douglas Street

5. Mr. Stewart drove his car 4237 kilometres. What is that number rounded to the nearest hundred?

   a. 4000
   b. 4200
   c. 4300
   d. 5000

6. Nicky earned $587 working part time in a grocery store last month. What is that amount rounded to the nearest ten?

   a. $500
   b. $580
   c. $590
   d. $600

Lesson 24
Mental Math for Subtraction

Warm-Up

Can you answer all of these questions in two minutes? Give it a go!

9 – 4 =	13 – 6 =	15 – 6 =	11 – 3 =	17 – 8 =
10 – 8 =	18 – 9 =	16 – 7 =	14 – 9 =	10 – 2 =
11 – 4 =	12 – 9 =	14 – 5 =	17 – 9 =	16 – 10 =
16 – 8 =	13 – 8 =	10 – 5 =	12 – 5 =	14 – 6 =

11 –2	13 –4	10 –4	12 –3	15 –8

11 –8	13 –5	11 –9	12 –6	14 –7

It's Your Turn

A. Use your knowledge of the basic facts given to answer each set of questions below.

1. 17 – 8 = 9

27 – 8 = _____

37 – 8 = _____

47 – 8 = _____

57 – 8 = _____

2. 15 – 9 = 6

25 – 9 = _____

35 – 9 = _____

45 – 9 = _____

55 – 9 = _____

B. Find the difference by remembering to subtract tens.

Example: 239 – 149 = 90
Think! 23 tens – 14 tens = 9 tens

56 – 36 = _____

91 – 21 = _____

85 – 55 = _____

42 – 22 = _____

67 – 47 = _____

136 – 16 = _____

187 – 127 = _____

248 – 148 = _____

175 – 125 = _____

363 – 203 = _____

Challenge Yourself

1. Mr. Jones was filing some tax forms at this office. Write the letter of the drawer that he should put each form into.

   Form 36 126 _____

   Form 35 818 _____

   Form 36 819 _____

   Form 33 119 _____

   Form 38 003 _____

32 719 - 34 519 R		35 919 - 36 810 T
34 520 - 35 918 S		36 811 - 37 909 U
	37 910 - 38 150 V	

2. Who Am I?

   I am a 5-digit number. I have a 5 that stands for 500. The digit in my 10 000 place digit is 2 x 2. In my 1000 place my digit is 1 less than 7 and I also have 9 ones. Oh and by the way, I also have a zero in me. After figuring me out, look in the Answer Key to see if you are correct.

Lesson 25
Subtracting 2- and 3-Digit Numbers Without Regrouping

Warm-Up

You now know that subtraction is the reverse or opposite of addition.

Look at these facts.

$$6 + 8 = 14$$
$$14 - 8 = 6$$

You see that the numbers are reversed. In the first fact, the 8 is added. In the second fact, it is taken away. Knowing your addition facts helps you to know your subtraction facts.

Change the following addition facts to subtraction facts.

Example: 9 + 7 = 16 16 – 7 = 9

1. 7 + 9 = 16 _____
2. 8 + 9 = 17 _____
3. 4 + 7 = 11 _____
4. 9 + 4 = 13 _____
5. 7 + 5 = 12 _____
6. 3 + 8 = 11 _____
7. 5 + 9 = 14 _____
8. 6 + 8 = 14 _____

It's Your Turn

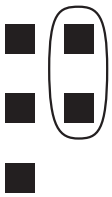
A. Use your place value mat and base 10 blocks to solve these equations.

1. 75	2. 117	3. 158	4. 326
–22	–14	–116	–203

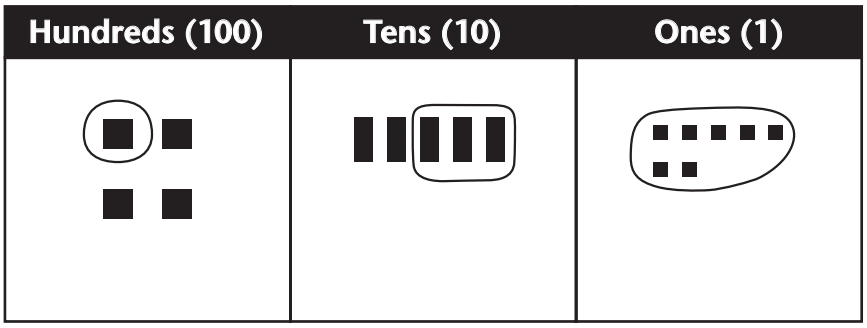
5. 529 – 410 =

6. 743 – 541 =

B. Write a complete subtraction equation for each of the following. The circled blocks are the blocks you subtract.

Hundreds (100)	Tens (10)	Ones (1)
		

1. _____



2. _____

C. Subtract these equations **without** the base 10 blocks and place value mat.

1. 81	2. 58	3. 75	4. 96
–61	–37	–62	–45

5. 246	6. 343	7. 629	8. 946
–131	–221	–322	–222

Challenge Yourself

A. Write 10 subtraction facts, each having a difference of 5. The difference is the answer to a subtraction question.

Example: 8 – 3 = 5 difference
15 – 10 = 5 difference

1. _____ 6. _____

2. _____ 7. _____

3. _____ 8. _____

4. _____ 9. _____

5. _____ 10. _____

B. Put in the missing number to complete each equation.

8 + _____ = 15 _____ + 8 = 15 15 – 8 = 15 – _____ = 8

C. What do you do if the first number in a subtraction equation is missing? _____

_____ – 5 = 9

_____ – 9 = 5

D. Add the missing numbers to complete the equations.

1. 17 – _____ = 8
2. 12 – _____ = 7
3. _____ – 4 = 9
4. _____ – 8 = 6
5. 11 – _____ = 5
6. _____ – 5 = 8

E. You can also find the missing numbers in two or three digit equations. Do you remember how to find the missing numbers? (Think of the related subtraction fact.)

Example:

$$\begin{array}{r} \mathbf{52} \\ +\mathbf{?} \\ \hline \mathbf{76} \end{array} \quad \mathbf{76 - 52} = \quad \text{or} \quad \begin{array}{r} \mathbf{76} \\ -\mathbf{52} \\ \hline \end{array}$$

The answer is 24.

Now you try.

1. 63 + _____ = 127
2. _____ + 66 = 79
3. 106 + _____ = 217
4. 342 + _____ = 466
5. $\begin{array}{r} 375 \\ -\ ? \\ \hline 142 \end{array}$
6. $\begin{array}{r} 948 \\ -\ ? \\ \hline 902 \end{array}$

Lesson 26
Estimating to Subtract

Warm-Up

Instead of using a place value mat and base 10 blocks, you can use a simple chart to help keep numbers lined up correctly.

H	T	O

Line up the digits correctly on each HTO chart and then subtract. Sometimes you will have an answer of zero. Remember to use 0 as a place-holder in the ones or tens place.

Begin subtracting with the ones. Find each answer.

1. 76 – 13 =

H	T	O

2. 168 – 155 =

H	T	O

3. 348 – 145 =

H	T	O

4. 558 – 238 =

H	T	O

5. 4959 – 2843=

Th	H	T	O

6. 5896 – 4851 =

Th	H	T	O

7. 87 685 – 21 452 =

Ten Th	Th	H	T	O

8. 356 319 – 44 216 =

Hun-dred Th	Ten Th	Th	H	T	O

It's Your Turn

A. Use your ruler. Draw straight lines to match the number on the left with its rounded number on the right. Each number has been rounded to the nearest 10.

Example: 71 80

83 70

176	100
213	190
143	130
96	110
108	140
217	180
185	210
134	220

B. Estimate by rounding each number to the nearest 10. Complete each subtraction question using the rounded numbers.

Examples:

87	⟶	**90**	**131**	⟶	**130**
–45	⟶	**–45**	**–96**	⟶	**–100**
		40			**30**

1. 73 → _____ / –32 → _____
2. 67 → _____ / –36 → _____
3. 48 → _____ / –21 → _____
4. 112 → _____ / –48 → _____
5. 162 → _____ / –108 → _____
6. 197 → _____ / –101 → _____

C. Round each number to the nearest 100, then subtract the rounded numbers.

Example:

131	⟶	**130**
–96	⟶	**–100**
		30

1. 423 → _____ / –118 → _____
2. 817 → _____ / –127 → _____
3. 319 → _____ / –224 → _____
4. 498 → _____ / –287 → _____
5. 1207 → _____ / –723 → _____
6. 1679 → _____ / –1381 → _____

D. Circle any numbers which have been incorrectly rounded to the nearest 100.

Example: **149** ⟶ **200**

149 rounded to the nearest hundred is 100.

1. 625 ⟶ 600
2. 875 ⟶ 800
3. 906 ⟶ 900
4. 1271 ⟶ 1200
5. 1573 ⟶ 1500
6. 745 ⟶ 700
7. 422 ⟶ 200
8. 1017 ⟶ 1100

Challenge Yourself

A. You can use addition to check your subtraction answers.

Example:

$$\begin{array}{r} \mathbf{684} \\ -363 \\ \hline 221 \end{array}$$

Add the last two numbers of the equation. Your answer should be the same as the first number in the equation.

$$\begin{array}{r} 363 \\ +221 \\ \hline \mathbf{684} \end{array}$$

Answer the following subtraction questions and then check your answers by adding the last two numbers of each equation. You can use your calculator to add.

1. $\begin{array}{r} 74 \\ -32 \end{array}$
2. $\begin{array}{r} 142 \\ -31 \end{array}$
3. $\begin{array}{r} 276 \\ -133 \end{array}$
4. $\begin{array}{r} 6917 \\ -3906 \end{array}$
5. $\begin{array}{r} 7988 \\ -4213 \end{array}$
6. $\begin{array}{r} 93\,756 \\ -55\,626 \end{array}$

B. Find the missing number or numbers. You can use your calculator.

1. $\begin{array}{r} 7\ 3 \\ -4\_ \\ \hline 3\ 0 \end{array}$
2. $\begin{array}{r} 9\_ \\ -2\ 3 \\ \hline 7\ 0 \end{array}$
3. $\begin{array}{r} \_\ 6 \\ -5\ 4 \\ \hline 4\ 2 \end{array}$
4. $\begin{array}{r} \_\ \_ \\ -\ 2\ 2 \\ \hline 6\ 7 \end{array}$

Lesson 27
Subtracting 2-Digit Numbers with Regrouping

Warm-Up

A. Round each number to the nearest 10.

47	_____	121	_____
86	_____	375	_____
95	_____	283	_____
12	_____	197	_____

B. Round off each number to the nearest 100.

420	_____	793	_____
639	_____	3926	_____
1962	_____	1555	_____

C. Round each number to the nearest 10, then subtract.

Example: **82** → **80**
–22 → **–20**
60

1. 75 → _____
   –46 → _____

2. 89 → _____
   –22 → _____

3. 77 → _____
   –62 → _____

4. 97 → _____
   –13 → _____

5. 111 → _____
   –83 → _____

It's Your Turn

Although you may find these questions easy to solve, use your base 10 blocks and the place value mat to find the answers. Write the answers down.

1. 93 – 56 =
2. 85 – 79 =
3. 38 – 19 =

4. 51 – 21 =
5. 25 – 18 =
6. 63 – 47 =

7. 70
   –33

8. 42
   –18

Challenge Yourself

Enjoy some subtraction activities on your computer. Use some Web sites listed on the Web site pages at the beginning of Part 1.

Lesson 28
Subtraction to One Hundred with Regrouping

Warm-Up

Time: _____ seconds

Time yourself to see how fast you can answer the following mental arithmetic questions.

1. 14 – 6 =
2. 19 – 9 =
3. 13 – 7 =
4. 15 – 9 =
5. 10 – 4 =
6. 7 – 4 =
7. 16 – 8 =
8. 6 – 3 =
9. 17 – 12 =
10. 8 – 2 =
11. 6 – 4 =
12. 16 – 11 =
13. 19 – 10 =
14. 15 – 9 =
15. 9 – 1 =
16. 14 – 7 =
17. 12 – 9 =
18. 18 – 9 =
19. 18 – 8 =
20. 10 – 5 =
21. 11 – 3 =
22. 11 – 8 =

It's Your Turn

1.

T	O
5	1
– 3	6

2.

T	O
2	4
– 1	9

3.

T	O
7	1
– 4	3

4.

T	O
6	8
– 4	9

5.

T	O
3	3
– 1	4

6.

T	O
4	5
– 1	7

Challenge Yourself

1. Jordan has $106.00 in the bank. His mother said he could take out $29 to buy a new DVD movie. About how much money did he have left?

   Circle the correct answer.

   a. $25.00

   b. $50.00

   c. $80.00

   d. $100.00

2. Mrs. Jones had 85 pumpkins to sell from her garden. By the end of the week she had sold 59 of them. How many pumpkins did she have left?

   Circle the correct answer.

   a. 27

   b. 26

   c. 25

   d. 24

3. Use your understanding of place value to continue the pattern in these subtraction questions The first two questions have been done for you.

   235 900 – 20 000 = 215 900

   215 900 – 20 000 = 195 900

   195 900 – 20 000 = _____

   175 900 – 20 000 = _____

   155 900 – 20 000 = _____

   _____ – 20 000 = _____

   _____ – 20 000 = _____

Lesson 29
Checking Your Work

Warm-Up

Find the difference. You will find that you have to trade tens and ones.

T	O
9	2
– 6	5

T	O
7	4
– 3	8

T	O
4	7
– 3	9

T	O
6	6
– 1	9

T	O
5	2
– 3	6

It's Your Turn

A. Subtract each of the questions below. Then subtract each question again using your calculator. Correct any mistakes you find.

1. 296 –192	2. 865 –43	3. 478 –151
4. 9964 –7853	5. 54 897 –12 607	6. 87 889 –7 779

B. Find the difference. Check your work by using addition. Write the addition question beside each of the subtraction questions.

Remember you add the difference in your answer to the number being subtracted. (The last two numbers of the equation.)

1. 63 –15	2. 39 –27	3. 91 –36
4. 375 –54	5. 868 –423	6. 290 –130
7. 81 438 –70 318	8. 2879 –1632	

C. Solve these problems. Estimate to check your answers are correct. Show **all** your work in the space under each problem and complete the answer sentences.

1. There were 368 students at Hillbrook Elementary School. 225 students had permission to go ice skating. How many students were not going on the trip?

_____ students were not going on the trip.

2. In the Bear Creek campground there were 248 registered campers. Some campers were staying trailers and some were in tents. If 125 people were in tents, how many people were in trailers?

_____ people were in trailers.

Challenge Yourself

Are you a good problem solver? Try these. Circle your choice of answer for each problem.

1. In 2001 the population of Victoria was seventy-four thousand, one hundred twenty-five. Which number means seventy-four thousand, one hundred twenty-five?

   a. 74 135

   b. 75 125

   c. 74 521

   d. 74 025

2. What number is equal to (8 x 1000) + (7 x 100) + (2 x 10)?

   a. 80 720

   b. 8720

   c. 8702

   d. 8072

3. Mark was thinking of a number with 8 in the hundreds place. Which of these could be the number?

   a. 5280

   b. 1825

   c. 8137

   d. 2408

4. Which number sentence goes with 12 – 5 = 7?

   a. 7 – 5 = 2

   b. 12 + 5 = 17

   c. 12 = 7 = 19

   d. 5 + 7 = 12

5. Write 8 subtraction questions each having a difference of 500.

Example: 800 – 300 = 500

_____ _____

_____ _____

_____ _____

_____ _____

Lesson 30
Review Lesson

A. Complete the basic facts equations.

1.	6 – 4	=	_____	11.	17 – 5	=	_____
2.	9 – 8	=	_____	12.	16 – 8	=	_____
3.	18 – 12	=	_____	13.	11 – 5	=	_____
4.	12 – 9	=	_____	14.	8 – 4	=	_____
5.	15 – 8	=	_____	15.	19 – 13	=	_____
6.	15 – 7	=	_____	16.	12 – 7	=	_____
7.	12 – 6	=	_____	17.	10 – 6	=	_____
8.	17 – 13	=	_____	18.	9 – 5	=	_____
9.	14 – 7	=	_____	19.	16 – 15	=	_____
10.	13 – 9	=	_____	20.	15 – 3	=	_____

B. Complete the fact families by writing the related subtraction facts.

Sample question: **7 + 9 = 16** _____

5 + 7 = 12 _____

1.	8 + 3 = 11	_____	2.	7 + 5 = 12	_____
	3 + 8 = 11	_____		5 + 7 = 12	_____
3.	5 + 8 = 13	_____	4.	9 + 7 = 16	_____
	8 + 5 = 13	_____		7 + 9 = 16	_____
5.	9 + 9 = 18	_____			

C. Use your knowledge of the basic facts to answer each set of questions.

Sample question: **17 – 8 = 9**
27 – 8 = _____
37 – 8 = _____

1. **15** – 7 = 8
25 – 7 = _____
35 – 7 = _____
45 – 7 = _____
55 – 7 = _____

2. **13** – 8 = 5
23 – 8 = _____
33 – 8 = _____
43 – 8 = _____
53 – 8 = _____

D. Subtract. Check to see if you need to regroup.

Sample question:
38
–**27**
11

1.	2.	3.	4.	5.
87	96	73	62	80
–68	–85	–44	–47	–51

6.	7.	8.	9.	10.
47	81	78	390	570
–29	–23	–19	–80	–50

E. Estimate and subtract.

1. Round to the nearest 10, then subtract to find the estimate.

Sample question:

$$\begin{array}{r} \mathbf{162} \\ \underline{\mathbf{-108}} \end{array} \quad \begin{array}{l} \_\_\_ \\ -\_\_\_ \end{array}$$

$$\begin{array}{r} 83 \\ \underline{-42} \end{array} \quad \_\_\_\_\_ \qquad \begin{array}{r} 77 \\ \underline{-26} \end{array} \quad \_\_\_\_\_ \qquad \begin{array}{r} 48 \\ \underline{-31} \end{array} \quad \_\_\_\_\_$$

$$\begin{array}{r} 212 \\ \underline{-58} \end{array} \quad \_\_\_\_\_ \qquad \begin{array}{r} 457 \\ \underline{-245} \end{array} \quad \_\_\_\_\_$$

2. Round to the nearest 100, then subtract to find the estimate. Write the rounded numbers beside each question.

Sample question:

$$\begin{array}{r} \mathbf{162} \\ \underline{\mathbf{-108}} \end{array} \quad \begin{array}{l} \_\_\_ \\ -\_\_\_ \end{array}$$

$$\begin{array}{r} 505 \\ \underline{-393} \end{array} \qquad \begin{array}{r} 1016 \\ \underline{-497} \end{array} \qquad \begin{array}{r} 1241 \\ \underline{-806} \end{array}$$

$$\begin{array}{r} 655 \\ \underline{-207} \end{array} \qquad \begin{array}{r} 817 \\ \underline{-405} \end{array} \qquad \begin{array}{r} 610 \\ \underline{-402} \end{array}$$

F. Find the difference. Check your work by using addition. Write each addition checking question.

Sample question:

$$\begin{array}{r} \mathbf{68} \\ \underline{-\mathbf{25}} \\ \mathbf{43} \end{array} \qquad \begin{array}{r} \mathbf{43} \\ \underline{+\mathbf{25}} \\ \mathbf{68} \end{array}$$

1. $\begin{array}{r} 74 \\ \underline{-36} \end{array}$

2. $\begin{array}{r} 49 \\ -37 \end{array}$

3. $\begin{array}{r} 767 \\ -326 \end{array}$

4. $\begin{array}{r} 3762 \\ \underline{-1541} \end{array}$

5. $\begin{array}{r} 97\,546 \\ \underline{-15\,235} \end{array}$

Lesson 31
Subtracting 3-Digit Numbers With One Trade

Warm-Up

Fill in the blanks. Use your knowledge of place value and complete these question in your head. The first one is done as an example.

1. 2413 – 300 = 2113

2. 4627 – _____ = 1627

3. 5348 – _____ = 5340

4. 16 275 – _____ = 6275

5. 47 827 – _____ = 47 727

It's Your Turn

A. Use your place value mat and base 10 blocks to solve the subtraction questions. You will need to trade tens for ones or trade hundreds for tens. Ask a parent to watch you solve the problems using the mat and base 10 blocks.

1.	2.	3.	4.
415	262	528	327
–284	–145	–377	–109

B. Write each subtraction question in an HTO chart and then find the difference. Remember to check the ones column first. Show each trade you make on your work.

1. 419
   –326

H	T	O

2. 709
   –415

H	T	O

3. 232
−117

H	T	O

4. 973
−847

H	T	O

Challenge Yourself
This is what you do when you subtract money

Example: $5.75 – 2.15

	1. Subtract pennies: 5 – 5 = 0
$5.75	2. Subtract dimes: 7 – 1 = 6
2.15	3. Subtract dollars: 5 – 2 = 3
$3.60	4. Put in the dollar sign ($) and the decimal point (.)

A. Line up the digits, then subtract. Remember your dollar signs. Check your answers with your calculator.

1. $7.82 – $6.60

2. $62.50 – $41.20

3. $775.90 – $212.50

4. $8.80 – 0.60

B. Find the difference.

1. $7.68
   –3.42

2. $864.95
   –211.25

3. $345.75
   –220.10

Lesson 32
Another Look at Subtraction with One Trade

Warm-Up

Fill in the blanks. Use your knowledge of place value and complete these questions in your head. These are similar to the questions you completed in the previous Warm-Up.

1. 65 265 – _____ = 35 265

2. 8427 – _____ = 8407

3. 18 890 – _____ = 11 890

4. 40 000 – _____ = 10 000

5. 9341 – _____ = 5341

It's Your Turn

A. Trade and subtract. Show your trades.

1. 424 –318	2. 320 –117	3. 243 –191
4. 455 –285	5. 84 –57	6. 216 –107

B. Subtract. Trade wherever necessary. Show your trades.

1. 86 –75	2. 136 –24	3. 126 –118
4. 367 –258	5. 52 –29	6. 411 –309

Challenge Yourself

Solve each problem. Show your work in the box and write a sentence answer.

1. Jill went to the store with $12.75 to spend. She bought a jar of peanut butter for $2.98, a dozen eggs for $1.55, and a loaf of bread for $1.22. How much money did Jill have left?

Sentence answer: _____

_____

2. James made $125.70 selling lemonade in July. His friend, Anna, made $135.20 babysitting during July. How much money did the children earn between them in July?

Sentence answer: _____

_____

3. Mrs. Jensen earned $32 425 in 2004 and $44 529 in 2005. Exactly how much more did she earn in 2005 than in 2004?

Sentence answer: _____

_____

Lesson 33
Subtracting 3-Numbers with Two Trades

Warm-Up

Subtract. Line up the digits correctly and only trade when necessary. Show your trades.

1. 92 – 67
2. 141 – 80
3. 227 – 153

4. 454 – 329
5. 786 – 79
6. 755 – 428

It's Your Turn

A. Solve these subtraction questions on the HTO charts provided. Make sure to show all your trades.

1. 423
   –279

H	T	O

2. 514
   –376

H	T	O

3. 216
   –88

H	T	O

4. 811
   –694

H	T	O

B. Line up the digits on an HTO chart and subtract. Show all your trades.

1. 112 – 67

H	T	O

2. 273 – 68

H	T	O

3. 512 – 247

H	T	O

4. 623 – 489

H	T	O

Challenge Yourself
Go to http://www.aaamath.com/ for extra subtraction practice. From the list of Math topics, click on Subtraction and then scroll down to Equation—Three Digit.

Some other topics you may find helpful are:

- Subtracting Hundreds
- Using Estimation
- Mental Math
- Pencil and Paper
- Calculator
- Place Value

You can also find a selection of games at http://www.funbrain.com/

Lesson 34
Pencil and Paper Subtraction of 3-Digit Numbers with Regrouping

Warm-Up

Complete these questions by placing the correct number in each blank space. The first on is done as an example.

1. 60 = 5 tens + **10** ones
2. 90 = _____ tens + 10 ones
3. 40 = 3 tens + _____ ones
4. _____ = 7 tens + 10 ones
5. 300 = 2 hundreds + _____ tens
6. 500 = 4 hundreds + _____ tens
7. 800 = _____ hundreds + 10 tens
8. _____ = 1 hundred + 10 tens
9. 1000 = _____ hundreds + 9 tens + 10 ones
10. 1000 = 9 hundreds + 9 tens + _____ ones

It's Your Turn

Subtract. In these questions you have to trade twice. Be sure to show all your work.

1. 486 –327	2. 746 –568	3. 483 –194
4. 673 –275	5. 923 –167	6. 867 –559

Challenge Yourself

Solve each problem. Show your work in the box and write a sentence answer to each question asked.

1. The school gives primary students pencils. The principal ordered 375 pencils, but only 189 pencils were used. How many pencils were left?

Sentence Answer: _____

_____

2. Sam is buying a fishing rod that costs $82.19. He gives the salesclerk $90.19. How much change will Sam get back?

Sentence Answer: _____

_____

3. A line of 430 people wanted to buy tickets to see a famous singer. Only 385 people got tickets. How many people did not get tickets?

Sentence Answer: _____

_____

4. Mary Ann is reading a book that has 364 pages. She has read 119 pages so far. How many more pages does Mary Ann have to read?

Sentence Answer: _____

_____

Lesson 35
Estimating Differences and Subtracting 4-, 5-, and 6-Digit Numbers (With and Without Trades)

Warm-Up

By now you should be able to recall most of the basic facts by memory. Below is a review of three rules (strategies) for easier facts if you find them necessary.

- Any number minus itself equals 0.
- Any number minus 0 equals that number.
- Any number minus 1, 2, 3, 4 can be quickly counted down to find the difference.

  For example: for 19 – 4 you count down 4 digits—**18, 17, 16, 15** to find the answer.

A. Complete the following facts.

1. 6 – 0 = _____	6. 55 – 3 = _____
2. 9 – 9 = _____	7. 88 – 88 = _____
3. 8 – 3 = _____	8. 93 – 0 = _____
4. 7 – 0 = _____	9. 41 – 4 = _____
5. 9 – 5 = _____	10. 61 – 2 = _____

B. Round each number to the nearest hundred.

1. 666 _____
2. 250 _____
3. 1146 _____
4. 2785 _____
5. 8426 _____
6. 4017 _____
7. 12 124 _____
8. 16 371 _____
9. 21 960 _____
10. 59 081 _____

It's Your Turn

A. Round each number to the nearest 100, then subtract.

Example: **7780** → **7800**
–6369 → **–6400**
1400

1. 3465 →
   –2119 →

2. 6818 →
   –5798 →

3. 9240 →
   –8515 →

4. 6450 →
   –4297 →

5. 2720 →
   –1414 →

6. 7802 →
   –350 →

B. Estimate the answers to the following questions by rounding to the nearest 1000.

Example: **43 684** → **44 000**
–21 552 → **–22 000**
22 000

1. 79 814
   –63 502

2. 85 213
   –71 285

3. 93 216
   –55 628

4. 356 319
   –48 826

5. 147 219
   –35 423

Challenge Yourself

Look at the following annual profits for a local business.

2002—$34 896

2003—$43 986

2004—$32 894

2005—$45 465

Round each to the nearest 1000 to answer these questions. (Show your work.)

1. About how much greater was the profit in 1987 than in 1988?

2. About how much difference in profit was there in 1989 from 1986?

3. Which was greater, the combined profits from 1986-87 or 1988-89?

Lesson 36
Subtracting 4-Digit Numbers With Trading

Warm-Up

Fill in the blanks with the missing number.

Example: 6 hundreds 7 tens 5 ones = 6 hundreds 6 tens 15 ones

1. 2 hundreds 4 tens 3 ones = 2 hundreds 3 tens _____ ones

2. 6 hundreds 3 tens 8 ones = 6 hundreds 2 tens _____ ones

3. 9 hundreds 7 tens 2 ones = 9 hundreds 6 tens _____ ones

4. 3 hundreds 3 tens 0 ones = 3 hundreds 2 tens _____ ones

5. 4 hundreds 6 tens 2 ones = 3 hundreds _____ tens 2 ones

6. 5 hundreds 5 tens 5 ones = 4 hundreds _____ tens 5 ones

7. 8 hundreds 2 tens 1 ones = 7 hundreds _____ tens 1 ones

8. 1 hundreds 1 tens 6 ones = 0 hundreds _____ tens 6 ones

9. 3 thousands 2 hundreds 4 tens 3 ones =

   2 thousands _____ hundreds 4 tens 3 ones

10. 5 thousands 8 hundreds 2 tens 2 ones =

    4 thousands _____ hundreds 2 tens 2 ones

It's Your Turn

A. In the following two questions, trading is required in only one question. Circle that question. Solve both questions.

1. 4205
   –4204

2. 5439
   –3574

Tell why you chose the question you did.

_____

_____

_____

B. Subtract. Trade whenever it is required and show your work.

1. 3976
   –582

2. 7946
   –2452

3. 4239
   – 74

4. 5843 – 2975 =

5. 1874 – 189 =

6. 4532
   –121

7. 5726
   –248

8. 7243
   –685

Challenge Yourself
Go to: http://klingon.cs.iupui.edu/~aharris/chis/chis.html

Have some fun with Chisenbop—doing basic arithmetic using your fingers.

Lesson 37
Finding Differences with Larger Numbers

Warm-Up

Here's a trick for subtracting 5 from any number between 10 and 20.

Add the digit in the ones column to 5 to find the answer.

Example: 18 – 5 = (8+ 5) = 13

The reason this works is because 5 is half of 10. It is as if you subtracted 10 (for example 18 – 10 = 8), then added back the 5 which was not subtracted.

Complete the following minus 5 subtraction facts showing your addition step.

1. 13 – 5 = _____

2. 17 – 5 =_____

3. 19 – 5 = _____

4. 16 – 5 = _____

5. 12 – 5 = _____

6. 14 – 5 = _____

7. 18 – 5 =_____

8. 11 – 5 = _____

9. 15 – 5 = _____

It's Your Turn

A. Find the differences. Show your trades.

1. 3981
   –1799

2. 8426
   –7841

3. 9834
   –7917

4. $60.45
   –31.84

5. 48 019
   –35 426

6. 82 881
   –65 320

B. Solve this problem. Be sure to write a sentence answer.

An office employee has spent six weeks reorganizing invoices in a new filing cabinet. He has finished up to File #18 994. He still has to file from File #18 995 to File #22 990. How many numbers does he have left to file?

Sentence Answer: _____

_____

Challenge Yourself

A 3-digit number is subtracted from a four digit number. The difference is 426. What could the two numbers be? Give two answers.

Lesson 38
Subtracting Across Zeros

Warm-Up

Complete each question by filling in the blanks. The first question is done for you.

1. 100 = _____ tens + 10 ones

2. 300 = 200 + _____ tens + 10 ones

3. 900 = 800 + 9 tens + _____ ones

4. 2000 = 1000 + 9 hundreds + _____ tens

5. 6000 = 5000 + _____ hundreds + 10 tens

6. 4000 = 3000 + 9 hundreds + 9 tens + _____ ones

7. 7000 = 6000 + 9 hundreds + _____ tens + 10 ones

8. 12 000 = 11 000 + _____ + 9 tens + 10 ones

9. 800 = 700 + _____ tens + 10 ones

10. 600 = _____ hundreds + 9 tens + 10 ones

It's Your Turn

A. Rewrite these numbers as if you were going to trade for ones. (When you trade for ones, you must always trade for 10 ones.)

Examples:

307 ⟶ **2 9 17**
3 0 ~~7~~

5003 ⟶ **4 9 9 13**
5 0 0 3

1. 204 _____

2. 1107 _____

3. 8004 _____

B. Subtract. Show addition questions which check your work. Show your trading.

1. 8003
–3774

2. 6050
–3375

3. 7500
–2478

4. 3000
–1525

5. $20.00
–4.17

6. $90.05
–23.75

Challenge Yourself

Find the difference. Use mental math.

1. 400 – 174 =
2. 500 – 189 =
3. 347 – 215 =
4. 701 – 500 =
5. 428 – 299 =
6. 152 – 107 =

Lesson 39
Review Lesson

A. Complete the basic facts equations.

6	11	3	13	6	11	13	6
–2	–7	–3	–5	–1	–6	–8	–3

12	5	10	7	13	4	10	13
–6	–4	–6	–2	–9	–1	–7	–7

14 – 9 = 15 – 6 = 11 – 3 = 18 – 9 =

12 – 8 = 14 – 8 = 8 – 7 = 12 – 3 =

B. Subtract. Show your trade in each question.

1. 192	2. 839	3. 485	4. 435	5. 672
–184	–595	–57	–72	–246

5. 987	6. 694	8. 786	9. 358	10. 971
–69	–287	–77	–63	–734

C. Subtract with two trades. Show your trades.

1.

H	T	O
9	3	4
– 2	7	5

2.

H	T	O
8	5	1
– 4	6	2

3.

H	T	O
6	1	2
–	9	6

4.

H	T	O
5	4	3
–	8	8

D. Subtract using two trades. Show your work.

1.	2.	3.	4.	5.
666	127	627	745	924
–88	–49	–239	–496	–437

E. Estimate the answers to the following questions by rounding to the nearest 1000.

1. 91 236 – 45 289 = _____ – _____

2. 73 561 – 21 982 = _____ – _____

3. 63 059 – 60 284 = _____ – _____

4. 37 221 – 22 784 = _____ – _____

F. Find the difference. Trade where it is required and show all your work.

1. 1341 – 587

2. 4321 – 1737

3. 5724 – 1543

4. 2576 – 882

5. 9473 – 8365

6. 8000 – 4484

7. 9704 – 5816

8. 6070 – 895

9. $90.00 – 62.50

10. $78.00 – 15.95

11. 90 236 – 17 878

12. 41 326 – 19 812

G. Which answers are incorrect? ***Check by adding*** to find the differences for each question. Show your work beside each subtraction. Circle all questions with incorrect answers.

1.	213	2. 9565	3. 4305
	–199	–5982	–3219
	14	2683	1086

4.	67 821	5. 70 701	6. 82 992
	–38 125	–19 813	–41 989
	29 696	51 388	41 983

Game Ideas

You can use games to make practising the basic facts more enjoyable for your child.

Flashcards

If you have two children, you can have flash cards races. Flash the card quickly. The child who is first to give the correct answer gets the card. The child with the most cards wins.

If you have one child, flash each card quickly. If your child gives you the correct answer, put it face down in one pile. If he or she gives you an incorrect answer, put it face down in a second pile. Now pick up the incorrect answer pile of flashcards, shuffle them, and repeat.

Concentration

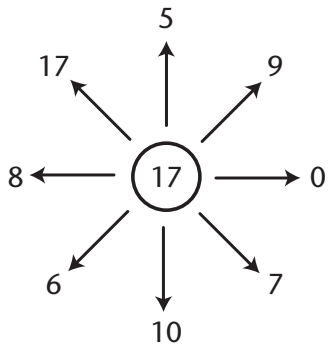
You can make a concentration game by printing subtraction equations on one set of cards and answers on another. Just make sure there are not two equations with the same answer.

Mix the cards and lay them face down. Take turns trying to match equations with their answers.

You can also make concentration cards with the equations on one set of cards and equation plus answers on another set of cards.

Run Round the Circle

Draw a small circle. Put any number from 10 to 18 in the circle and draw arrows out to a variety of numbers that can be subtracted from the number in the circle.

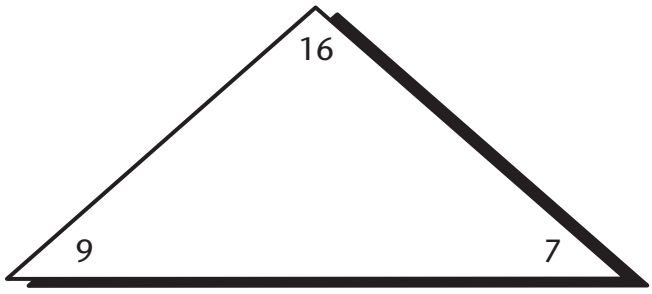


Ask your child to run round the circle by calling out the answers as quickly as possible.

Triangle Cards

Make triangle-shaped flashcards. On each triangle:

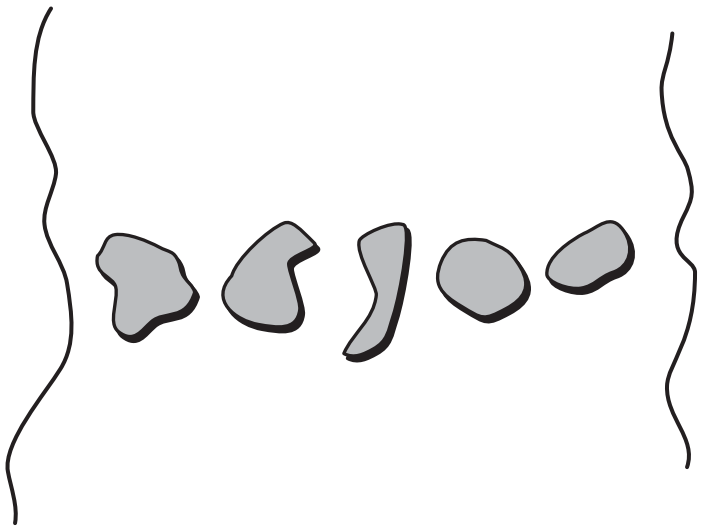
- in one corner print a number from eleven to nineteen
- in the two other corners, print numbers (one to ten) that equal the first number when added together



Have your child cover one number with his or her thumb and use the other two numbers to make up a basic fact question. The number under your child's thumb is the answer.

Cross the River

Make a drawing on a sheet of paper or chalkboard like the illustration below. Put in as many stones as you wish



On the riverbank write part of a subtraction equation.

For example, write 15 –

On each stone in the river, print numbers that can be taken away from 15 to form basic facts.

Ask: Can you cross the river without falling in?

Have your child take away each number to cross safely to the other side of the river.

A variation to this game is to draw a set of stairs instead of the stones in a river.

Part 2
Subtraction

Answer Key

Pre-Test—Answer Key
Basic Subtraction Facts to Eighteen

Part A

Answer the following questions as quickly as possible. This is not a timed test.

1.	7	2.	6	3.	9	4.	9	5.	5
6.	9	7.	9	8.	6	9.	9	10.	8
11.	7	12.	9	13.	6	14.	2	15.	5
16.	9	17.	6	18.	9	19.	7	20.	5
21.	5	22.	8	23.	6	24.	4	25.	5

Fact Families

Complete the fact families by writing the related subtraction facts.

Example: 8 + 3 = 11, 3 + 8 = 11, 11 – 3 = 8, 11 – 8 = 3

1. 5 + 4 = 9, 4 + 5 = 9, **9 – 4 = 5**, **9 – 5 = 4**
2. 6 + 7 = 13, 7 + 6 = 13, **13 – 7 = 6**, **13 – 6 = 7**
3. 8 + 7 = 15, 7 + 8 = 15, **15 – 7 = 8**, **15 – 8 = 7**
4. 9 + 7 = 16, 7 + 9 = 16, **16 – 7 = 9**, **16 – 9 = 7**
5. 8 + 5 = 13, 5 + 8 = 13, **13 – 5 = 8**, **13 – 8 = 5**

Mental Math

Use your knowledge of the basic facts to complete each set of equations.

1. **16 – 7 = 9**

   26 – 7 = **19**

   36 – 7 = **29**

   46 – 7 = **39**

   56 – 7 = **49**

2. **14 – 9 = 5**

   54 – 9 = **45**

   64 – 9 = **55**

   74 – 9 = **65**

   84 – 9 = **75**

3. Find the difference by subtracting tens.

   Example: 259 – 129 = 130
   25 tens – 12 tens = 13 tens

   a. 52 – 12 = **40**

   b 137 – 107 = **30**

   c. 972 – 472 = **500**

   d. 374 – 204 =**170**

   e. 776 – 176 = **600**

   These skills are covered in Lessons 22, 23, and 24.

Part B—Subtracting 2- and 3-digit Numbers Without Regrouping.

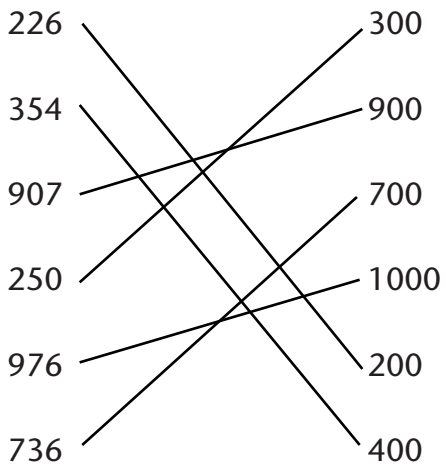
Subtract the following equations

1.	89	2.	97	3.	98	4.	67	5.	99
	–46		–94		–48		–23		–21
	43		**3**		**50**		**44**		**78**
6.	854	7.	783	8.	921	9.	783	10.	957
	–321		–652		–520		–521		–246
	533		**131**		**401**		**262**		**711**

These skills are covered in Lesson 25.

Part C—Estimate to Subtract

1. Draw lines to match the number on the left to its rounded number on the right.



2. Round to the nearest 10 and subtract.

a.	64	**60**	b.	131	**130**	c.	952	**950**
	–25	**–20**		–26	**–30**		–604	**–600**
		40			**100**			**350**

3. Round to the nearest 100 and subtract.

1. 598	600	2. 1817	1800	3. 2358	2300
–277	–300	–1151	–1100	–2119	–2100
	300		**700**		**200**

These skills are covered in Lesson 26.

Part D—Subtraction With One Trade

A. Find the difference.

1	1	1	1	1
1. ~~8~~1	2. ~~9~~1	3. ~~8~~2	4. ~~4~~2	5. ~~7~~1
–26	–35	–13	–29	–52
55	**56**	**69**	**13**	**19**

7 1	8 1	2 1	4 1	8 1
6. 7~~8~~3	7. ~~9~~21	8. 1~~3~~6	9. ~~5~~63	10. ~~9~~26
–625	–570	–17	–281	–341
158	**351**	**119**	**282**	**585**

B. Subtract. Check your answers with addition. Write the addition questions next to each subtraction question.

		5 1			
1. 475	411	2. 9~~6~~8	719	3. 480	340
–64	+64	–249	+249	–140	+140
411	475	**719**	968	**340**	480

5 1			
4. 35~~6~~7	2018	5. 63 547	23 107
–1549	+1549	–40 440	+40 440
2018	3567	**23 107**	63 547

These skills are covered in Lessons 27, 28, 29, 31, and 32.

Part E—Subtraction With Two Trades

Find the difference. Show your trading.

1. 7 12 1 ~~83~~2 –467 **365**	2. 7 12 1 ~~83~~0 –265 **565**	3. 4 12 1 ~~53~~1 –346 **195**	4. 5 13 1 ~~64~~0 –41 **599**	5. 7 13 1 ~~84~~2 –56 **786**

This skill is covered in Lessons 33 and 34.

Part F—Estimating Differences and Subtracting 4- to 6-Digit Numbers

A. Round numbers to the nearest 100 and subtract.

1.	3753 –1431	3800 –1400 **2400**	2.	15 343 –10 554	15 300 –10 600 **4 700**
3.	375 421 –164 820	375 400 –164 800 **210 600**			

B. Round numbers to the nearest 1000 and subtract.

1.	5426 –1760	5000 –2000 **3000**	2.	23 410 –14 768	23 000 –15 000 **8 000**
3.	598 320 –76 780	598 000 –77 000 **521 000**			

This skill is covered in Lesson 35.

Part G—Subtracting with Three Trades and Across Zeros

Find the difference.

1. $\begin{array}{r} {\scriptstyle 7\,11\,13\,1} \\ 8\not{2}\not{4}3 \\ -\,6\,8\,5 \\ \hline \mathbf{7\,5\,5\,8} \end{array}$

2. $\begin{array}{r} {\scriptstyle 6\,12\,13\,1} \\ \$\not{7}\not{3}.46 \\ -\,19.99 \\ \hline \mathbf{\$53.47} \end{array}$

3. $\begin{array}{r} {\scriptstyle 16\,12\,1} \\ 1\not{7}\not{3}274 \\ -\,9\,546 \\ \hline \mathbf{7781} \end{array}$

4. $\begin{array}{r} {\scriptstyle 0\,9\,9\,\;1} \\ \$\not{1}\not{0}\not{0}.00 \\ -\,41.50 \\ \hline \mathbf{58.50} \end{array}$

5. $\begin{array}{r} {\scriptstyle 3\,12\,12\,1} \\ 4\not{3}\not{3}46 \\ -\,18\,595 \\ \hline \mathbf{24\,751} \end{array}$

These skills are covered in Lessons 36, 37, and 38.

Answer Key—Part 2

(for student-marked activities)

Subtraction

Lesson 22: Separating and Comparing Numbers Practice Sheet

It's Your Turn

A.	8	9	4
	8	3	5
	2	5	5
B.	8	6	
	3	6	
	5	6	
	3	10	
	6	7	

Lesson 23: Counting Back and Fact Families Practice Sheet

Warm Up

5	5	3	5	3	5
6	8	11	8	6	4
11	8	7	10	7	8

It's Your Turn

A.	2	8	12	1	8
	8	7	8	7	8
B.	6	9	7		
	5	8	10		
C.	15 – 7 = 8		15 – 8 = 7		
	12 – 5 = 7		12 – 7 = 5		
	11 – 2 = 9		11 – 9 = 2		
	12 – 8 = 4		12 – 4 = 8		
	17 – 9 = 8		17 – 8 = 9		

Challenge Yourself

1. b. 6059
2. b. 8 hundreds
3. c. 9307
4. d. 73 Douglas Street
5. b. 4200
6. c. $590

Lesson 24: Mental Math for Subtraction Practice Sheet

Warm Up

5	7	9	8	9
2	9	9	5	8
7	3	9	8	6
8	5	5	7	8
9	9	6	9	7
3	8	2	6	7

It's Your Turn

A. 1. 17 – 8 = 9
27 – 8 = 19
37 – 8 = 29
47 – 8 = 39
57 – 8 = 49

2. 15 - 9 = 6
25 – 9 = 16
35 – 9 = 26
45 – 9 = 36
55 – 9 = 46

B. 56 – 36 = 20
91 – 21 = 70
85 – 55 = 30
42 – 22 = 20
67 – 47 = 20

136 – 16 = 120
187 – 127 = 60
248 – 148 = 100
175 – 125 = 50
363 – 203 = 160

Challenge Yourself

1. Drawer T
Drawer S
Drawer U
Drawer R
Drawer V

2. Who Am I?
   I am 46 509

Lesson 25: Subtracting 2- and 3-Digit Numbers Without Regrouping Practice Sheet

Warm Up

		or
1.	16 – 9 = 7	16 – 7 = 9
2.	17 – 9 = 8	17 – 8 = 9
3.	11 – 7 = 4	11 – 4 = 7
4.	13 – 4 = 9	13 – 9 = 4
5.	12 – 5 = 7	12 – 7 = 5
6.	11 – 8 = 3	11 – 3 = 8
7.	14 – 9 = 5	14 – 5 = 9
8.	14 – 8 = 6	14 – 6 = 8

It's Your Turn

A. 1. 53
   2. 103
   3. 42 (don't accept a 0 in the hundreds place)
   4. 123
   5. 119
   6. 202

B. 1. 325
   2. 320

C. 1. 20 2. 21 3. 13 4. 51
   5. 115 6. 122 7. 307 8. 724

Challenge Yourself

A. 15 – 10 = 5
   14 – 9 = 5
   13 – 8 = 5
   12 – 7 = 5
   11 – 6 = 5
   10 – 5 = 5

9 – 4 = 5

8 – 3 = 5

7 – 2 = 5

6 – 1 = 5

5 – 0 = 5

B. 8 + **7** = 15 **7** + 8 = 15 15 – 8 = **7** 15 – **7** = 8

C. What do you do if the first number in a subtraction equation is missing? Add the remaining addend to the answer (difference).

14 – 5 = 9

14 – 9 = 5

D. 1. 17 – 9 = 8 2. 12 – 5 = 7

3. 13 – 4 = 9 4. 14 – 8 = 6

5. 11 – 6 = 5 6. 13 – 5 = 8

E. 1. 63 + 64 = 127 2. 13 + 66 = 79

3. 106 + 111 = 217 4. 342 + 124 = 466

5. 375 6. 948
–233 – 46
142 902

Lesson 26: Estimating to Subtract Practice Sheet

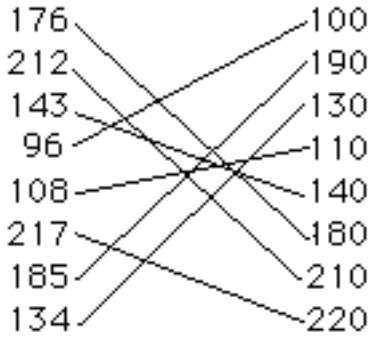
Warm Up

Your child's work should show the numbers lined up correctly in each HTO chart. The answers are:

1. 63
2. 13
3. 203
4. 320
5. 2116
6. 1045
7. 66 206
8. 312 103

It's Your Turn

A.



B.

1. $\begin{array}{r} 70 \\ -30 \\ \hline 40 \end{array}$ 2. $\begin{array}{r} 70 \\ -40 \\ \hline 30 \end{array}$ 3. $\begin{array}{r} 50 \\ -20 \\ \hline 30 \end{array}$

4. $\begin{array}{r} 110 \\ -50 \\ \hline 60 \end{array}$ 5. $\begin{array}{r} 160 \\ -110 \\ \hline 50 \end{array}$ 6. $\begin{array}{r} 200 \\ -100 \\ \hline 100 \end{array}$

C.

1. $\begin{array}{r} 400 \\ -100 \\ \hline 300 \end{array}$ _____ _____ 2. $\begin{array}{r} 800 \\ -100 \\ \hline 700 \end{array}$ _____ _____ 3. $\begin{array}{r} 300 \\ -200 \\ \hline 300 \end{array}$

4. $\begin{array}{r} 500 \\ -300 \\ \hline 200 \end{array}$ _____ _____ 5. $\begin{array}{r} 1200 \\ -700 \\ \hline 500 \end{array}$ _____ _____ 6. $\begin{array}{r} 1700 \\ -1300 \\ \hline 400 \end{array}$

D.
1. correct
2. 875 → 800
3. correct
4. 1271 → 1200
5. 1573 → 1500
6. correct
7. correct
8. 1017 → 1100

Challenge Yourself

B. 1. 3 2. 3 3. 9 4. 89

Lesson 27: Subtracting 2-Digit Numbers with Regrouping

Warm Up

A. 50 120
90 380
100 280
10 200

B. 400 800
600 900
2000 1600

C. 1. 80 2. 90 3. 80
–40 –20 –60
40 70 20

4. 100 5. 110
–10 –80
90 30

It's Your Turn

1. 37
2. 6 (no zero in the 10's place)
3. 19
4. 25
5. 7 (no zero in the 10's place)
6. 16
7. 37
8. 24

Challenge Yourself

No Challenge activity

Lesson 28: Subtraction to 100 with Regrouping

Warm Up

1.	8	2.	10
3.	6	4.	6
5.	6	6.	3
7.	8	8.	3
9.	5	10.	6
11.	2	12.	15
13.	9	14.	6
15.	8	16.	7
17.	3	18.	9
19.	10	20.	5
21.	8	22.	3

It's Your Turn

1.

T	O
4 ~~5~~	1 1
– 3	6
1	5

2.

T	O
1 ~~2~~	1 4
– 1	9
	5

3.

T	O
6 ~~7~~	1 1
– 4	3
2	8

4.

T	O
5 ~~6~~	1 8
– 4	9
1	9

5.

T	O
2 ~~3~~	1 3
– 1	4
1	9

6.

T	O
3 ~~4~~	1 5
– 1	7
2	8

Challenge Yourself

1. c. $80.00
2. b. 26
3. 175 900
   155 900
   135 900
   135 900 115 900
   115 900 95 900

Lesson 29: Checking Your Work Practice Sheet

Warm Up

T	O
$\cancel{9}^{8}$	$^{1}2$
– 6	5
2	7

T	O
$\cancel{7}^{6}$	$^{1}4$
– 3	8
3	6

T	O
$\cancel{4}^{3}$	$^{1}7$
– 3	9
	8

T	O
$\cancel{6}^{5}$	$^{1}6$
– 1	9
4	7

T	O
$\cancel{5}^{4}$	$^{1}2$
– 3	6
1	6

It's Your Turn

A. All answers are to be checked by use of calculator

1. 104 2. 822 3. 327
4. 2111 5. 42 290 6. 80 110

1.
63	48
–15	+15
48	63

2.
39	12
–27	+27
12	39

3.
91	55
–36	+36
55	91

4.
375	321
–54	+54
321	375

5.
868	445
–423	+423
445	868

6.
290	160
–130	+130
160	290

7.
81 438	11 120
–70 318	+70 318
11 120	81 438

8.
2879	247
–1632	+1632
1247	2879

C.

1.
368	400
–225	–200
143	200

143 students were not going on the trip.

2.
248	200
–125	–100
123	100

123 people were in trailers.

Challenge Yourself

1. b
2. b
3. b
4. d
5. a variety of answers such as:

700 – 200 = 500 or 1782 – 1282 = 500
1300 - 800 = 500 32 640 – 32 140 = 500

Lesson 30: Review Lesson Practice Sheet

A.

1.	2	11.	12
2.	1	12.	8
3.	6	13.	6
4.	3	14.	4
5.	7	15.	6
6.	8	16.	5
7.	6	17.	4
8.	4	18.	4
9.	7	19.	1
10.	4	20.	12

B.

1. 11 – 8 = 3
   11 – 3=8
2. 12 – 7 = 5
   12 – 5 = 7
3. 13 – 5 = 8
   13 – 8 = 5
4. 16 – 7 = 9
   16 – 9 = 7
5. 18 – 9 = 9

C.

1. 25-7= 18
   35-7= 28
   45-7= 38
   55-7= 48
2. 23-8= 15
   33-8= 25
   43-8= 35
   53-8= 45

D. 1. 19 2. 11 3. 29 4. 15 5. 29
6. 18 7. 58 8. 59 9. 310 10. 520

E.

1. $\begin{array}{r} 80 \\ -40 \\ \hline 40 \end{array}$ $\begin{array}{r} 80 \\ -30 \\ \hline 50 \end{array}$ $\begin{array}{r} 50 \\ -30 \\ \hline 20 \end{array}$

$\begin{array}{r} 210 \\ -60 \\ \hline 50 \end{array}$ $\begin{array}{r} 460 \\ -240 \\ \hline 220 \end{array}$

2.	500	1000	1200
	–400	–500	–800
	100	500	400
	700	800	600
	–200	–400	–400
	500	400	200

F. 1.

74	38	2. 49	12	3. 767	441
–36	+36	–37	+37	–326	+326
38	74	12	49	441	767

4. 3762	2241	5. 97 546	82 311
–1541	+1541	–15 235	+15 235
2241	3782	82 311	97 546

Lesson 31: Subtracting 3-Digit Numbers With One Trade
Practice Sheet

Warm Up

1. completed
2. 3000
3. 8
4. 10 000
5. 100

It's Your Turn

A. 1. 131 2. 117 3. 151 4. 218

B.

1.

H	T	O
3	1	
~~4~~	~~1~~	9
– 3	2	6
	9	3

2.

H	T	O
6	1	
~~7~~	0	9
– 4	1	5
2	9	4

3.

H	T	O
	2	1
2	~~3~~	2
– 1	1	7
1	1	5

4.

H	T	O
	6	1
9	~~7~~	3
– 8	4	7
1	2	6

Challenge Yourself

A. 1. $1.22 2. $21.30
3. $563.40 4. $8.20

B. 1. $4.26 2. $653.70 3. $125.65

Lesson 32: Another Look at Subtraction with One Trade
Practice Sheets

Warm Up

1. 30 000
2. 20
3. 7000
4. 30 000
5. 4000

It's Your Turn

A. 1. $\begin{array}{r} {\scriptstyle 1\ 14} \\ 4\not{2}4 \\ -318 \\ \hline 106 \end{array}$

2. $\begin{array}{r} {\scriptstyle 1\ 10} \\ 3\not{2}0 \\ -117 \\ \hline 203 \end{array}$

3. $\begin{array}{r} {\scriptstyle 1\ 14} \\ \not{2}43 \\ -191 \\ \hline 52 \end{array}$

4. $\begin{array}{r} {\scriptstyle 3\ 15} \\ 4\not{5}5 \\ -285 \\ \hline 170 \end{array}$

5. $\begin{array}{r} {\scriptstyle 7\ 14} \\ \not{8}4 \\ -57 \\ \hline 27 \end{array}$

6. $\begin{array}{r} {\scriptstyle 0\ 16} \\ 2\not{1}6 \\ -107 \\ \hline 109 \end{array}$

B. 1. $\begin{array}{r} 86 \\ -75 \\ \hline 11 \end{array}$

2. $\begin{array}{r} 136 \\ -24 \\ \hline 112 \end{array}$

3. $\begin{array}{r} {\scriptstyle 1\ 16} \\ 126 \\ -118 \\ \hline 8 \end{array}$

4. $\begin{array}{r} {\scriptstyle 5\ 17} \\ 367 \\ -258 \\ \hline 109 \end{array}$

5. $\begin{array}{r} {\scriptstyle 4\ 12} \\ 52 \\ -29 \\ \hline 23 \end{array}$

6. $\begin{array}{r} {\scriptstyle 0\ 11} \\ 411 \\ -309 \\ \hline 102 \end{array}$

Challenge Yourself

Word Problems

1. Both steps of the problem must be shown.

$\begin{array}{r} \$2.98 \\ 1.55 \\ 1.22 \\ \hline \$5.75 \end{array}$ $\begin{array}{r} \$12.75 \\ -5.75 \\ \hline \$7.00 \end{array}$

Jill had $7.00 left.

2. $\begin{array}{r} \$125.70 \\ +135.20 \\ \hline \$260.90 \end{array}$

The children earned a total of $260.90

3. $\begin{array}{r} \$44\ 529 \\ 32\ 425 \\ \hline \$12\ 104 \end{array}$

Mrs. Jensen earned $12 104 more in 2005.

Lesson 33: Subtracting 3-Digit Numbers with Two Trades
Practice Sheet

Warm Up

Your child is to have each set of digits the correct position and all trades shown.

1. $\begin{array}{r} {\scriptstyle 8\ 12} \\ \cancel{9}\cancel{2} \\ -67 \\ \hline 25 \end{array}$

2. $\begin{array}{r} {\scriptstyle 0\ 14} \\ \cancel{1}\cancel{4}1 \\ -80 \\ \hline 61 \end{array}$

3. $\begin{array}{r} {\scriptstyle 1\ 12} \\ \cancel{2}\cancel{2}7 \\ -153 \\ \hline 74 \end{array}$

4. $\begin{array}{r} {\scriptstyle 4\ 14} \\ 4\cancel{5}\cancel{4} \\ -329 \\ \hline 125 \end{array}$

5. $\begin{array}{r} {\scriptstyle 7\ 16} \\ 7\cancel{8}\cancel{6} \\ -79 \\ \hline 707 \end{array}$

6. $\begin{array}{r} {\scriptstyle 4\ 15} \\ 7\cancel{5}\cancel{5} \\ -428 \\ \hline 327 \end{array}$

It's Your Turn

A. **1.**

H	T	O
3 4	11 2	1 3
– 2	7	9
1	4	4

2.

H	T	O
4 5	10 1	1 4
– 3	7	6
1	3	8

3.

H	T	O
1 2	10 1	1 6
–	8	8
1	2	8

4.

H	T	O
7 8	10 1	1 1
– 6	9	4
1	1	7

B. **1.**

H	T	O
0 ~~1~~	10 ~~1~~	1 2
–	6	7
	4	5

2.

H	T	O
	6 ~~7~~	1 3
2		
–	6	8
2	0	5

3.

H	T	O
4 ~~5~~	10 ~~1~~	1 2
– 2	4	7
2	6	5

4.

H	T	O
5 ~~6~~	11 ~~2~~	1 3
– 4	8	9
1	3	4

Lesson 34: Pencil and Paper-Subtraction of Three Digits with Regrouping Practice Sheet

Warm Up

1. 10
2. 8
3. 10
4. 80
5. 10
6. 10
7. 700
8. 200
9. 9
10. 10

It's Your Turn

1. $\begin{array}{r} {}^{7}4{}^{16}\cancel{86} \\ -327 \\ \hline 159 \end{array}$

6. $\begin{array}{r} {}^{6}1{}^{13}\cancel{7}{}^{16}\cancel{46} \\ -568 \\ \hline 178 \end{array}$

7. $\begin{array}{r} {}^{3}1{}^{7}\cancel{4}{}^{13}\cancel{83} \\ -194 \\ \hline 289 \end{array}$

8. $\begin{array}{r} {}^{5}1{}^{6}\cancel{6}{}^{13}\cancel{73} \\ -275 \\ \hline 398 \end{array}$

5. $\begin{array}{r} {}^{8}1{}^{11}\cancel{9}{}^{13}\cancel{23} \\ -167 \\ \hline 756 \end{array}$

6. $\begin{array}{r} {}^{5}\cancel{8}{}^{17}\cancel{67} \\ -559 \\ \hline 308 \end{array}$

Challenge Yourself

1. $\begin{array}{r} 375 \\ -189 \\ \hline 186 \end{array}$ 186 pencils were left.

2. $\begin{array}{r} \$90.19 \\ -82.19 \\ \hline \$\ 8.00 \end{array}$ Sam will get $8.00 back.

3. $\begin{array}{r} 430 \\ -385 \\ \hline 45 \end{array}$ 45 people did not get tickets.

4. $\begin{array}{r} 364 \\ -119 \\ \hline 245 \end{array}$ Mary Ann has 245 more pages to read.

Lesson 35: Estimating Differences and Subtracting 4-, 5-, and 6-Digit Numbers (With and Without Trades)

Warm Up

A.
1. 6
2. 0
3. 5
4. 7
5. 5
6. 52
7. 0
8. 93
9. 37
10. 59

B.
1. 1700
2. 300
3. 1100
4. 2800
5. 8400
6. 4000
7. 12 100
8. 16 400
9. 22 000
10. 59 100

It's Your Turn

A.

1. 3465 → 3500
   −2119 → −2100
   1400

2. 6818 → 6800
   −5798 → −5800
   1000

3. 9240 → 9200
   −8515 → −8500
   700

4. 6450 → 6500
   −4297 → −4300
   2200

5. 2720 → 2700
   −1414 → −1400
   1300

6. 7802 → 7800
   −350 → −400
   7400

B.

1. 1. 80 000
      −64 000
      16 000

   2. 85 000
      −71 000
      14 000

   3. 93 000
      −56 000
      37 000

4. 4. 356 000
      −49 000
      307 000

   5. 147 000
      −35 000
      112 000

Challenge Yourself

1. **$**44 000
   −33 000
   $11 000 The profit was about $11 000 greater.

2. **$**45 000
   −35 000
   $10 000 The difference in profits was about $10 000.

3.

1986 – 87	79 000
1988 – 89	–78 000
	1000

Profits for 1986 - 87 were greater by about $1000.

Lesson 36: Subtracting 4-Digit Numbers With Trading

Warm Up

1. 2 hundreds 4 tens 3 ones = 2 hundreds 3 tens **13** ones
2. 6 hundreds 3 tens 8 ones = 6 hundreds 2 tens **18** ones
3. 9 hundreds 7 tens 2 ones = 9 hundreds 6 tens **12** ones
4. 3 hundreds 3 tens 0 ones = 3 hundreds 2 tens **10** ones
5. 4 hundreds 6 tens 2 ones = 3 hundreds **16** tens 2 ones
6. 5 hundreds 5 tens 5 ones = 4 hundreds **15** tens 5 ones
7. 8 hundreds 2 tens 1 ones = 7 hundreds **12** tens 1 ones
8. 1 hundreds 1 tens 6 ones = 0 hundreds **11** tens 6 ones
9. 3 thousands 2 hundreds 4 tens 3 ones =
   2 thousands **12** hundreds 4 tens 3 ones
10. 5 thousands 8 hundreds 2 tens 2 ones =
    4 thousands **18** hundreds 2 tens 2 ones

It's Your Turn

A. 1.

4205	
–4204	
1	

2.

4 13 13	
~~5~~4~~3~~9	
–3574	
1865	

Example: You have to trade/borrow three times in question 2.

B. 1.

8 17	
3~~9~~7~~6~~	
–582	
3396	

2.

8 14	
7~~9~~4~~6~~	
–2452	
5494	

3.

1 13	
4~~2~~3~~9~~	
– 74	
4165	

4.

8 17 13 3	
~~5843~~	
–2975	
2868	

5.

7 16 14	
~~1874~~	
–189	
1685	

6. 4532 − 121 = 4411

7. $\overset{6\,11\,16}{5\cancel{7}\cancel{2}\cancel{6}} - 248 = 5478$

8. $\overset{6\,11\,113}{\cancel{7}\cancel{2}\cancel{4}3} - 685 = 6558$

Challenge Yourself

-no challenge answers

Lesson 37: Finding Differences with Larger Numbers
Practice Sheet

Warm Up

1. 13 – 5 = (3 + 5) = 8
2. 17 – 5 = (7 + 5) = 12
3. 19 – 5 = (9 + 5) = 14
4. 16 – 5 = (6 + 5) = 11
5. 12 – 5 = (2 + 5) = 7
6. 14 – 5 = (4 + 5) = 9
7. 18 – 5 = (8 + 5) = 13
8. 11 – 5 = (1 + 5) = 6
9. 15 – 5 = (5 + 5) = 10

It's Your Turn

A. 1. 2182 2. 585 3. 1917
4. $28.61 5. 12 593 6. 17 561

B. 3995 file numbers are left.

Challenge Yourself

There are a variety of answers.
Example: 729 – 303 = 426

Lesson 38: Subtracting Across Zeros Practice Sheet

Warm Up

1. 9
2. 9
3. 10
4. 10
5. 9
6. 10
7. 9
8. 9
9. 9
10. 5

It's Your Turn

A.

1. $\begin{array}{r} {\scriptstyle 1\ 9\ 1\ 4} \\ 2\,\cancel{0}\,\cancel{4} \end{array}$

2. $\begin{array}{r} {\scriptstyle 0\ 9\ 1\ 7} \\ \cancel{1}1\,\cancel{0}\,\cancel{7} \end{array}$

3. $\begin{array}{r} {\scriptstyle 7\ 9\ 9\ 1\ 4} \\ \cancel{8}\,\cancel{0}\,\cancel{0}\,\cancel{4} \end{array}$

B.

1. $\begin{array}{r} {\scriptstyle 7\ 9\ 9\ 1} \\ \cancel{800}3 \\ -3774 \\ \hline 4229 \end{array}$ $\begin{array}{r} 4229 \\ +3774 \\ \hline 8003 \end{array}$

2. $\begin{array}{r} {\scriptstyle 2\ 9\ 9\ 10} \\ \cancel{6050} \\ -3375 \\ \hline 2675 \end{array}$ $\begin{array}{r} 2675 \\ +3375 \\ \hline 6050 \end{array}$

3. $\begin{array}{r} {\scriptstyle 7\ 9\ 9\ 1} \\ 7\cancel{500} \\ -2478 \\ \hline 5022 \end{array}$ $\begin{array}{r} 5022 \\ +2478 \\ \hline 7500 \end{array}$

4. $\begin{array}{r} {\scriptstyle 2\ 9\ 9\ 10} \\ 3000 \\ -1525 \\ \hline 1475 \end{array}$ $\begin{array}{r} 1475 \\ +1525 \\ \hline 3000 \end{array}$

5. $\begin{array}{r} {\scriptstyle 1\ 9\ 9\ 10} \\ \$\cancel{20.00} \\ -4.17 \\ \hline \$15.83 \end{array}$ $\begin{array}{r} \$15.83 \\ +4.17 \\ \hline \$20.00 \end{array}$

6. $\begin{array}{r} {\scriptstyle 8\ 9\ 10} \\ \$\cancel{90.0}5 \\ -23.75 \\ \hline \$66.30 \end{array}$ $\begin{array}{r} \$66.30 \\ +23.75 \\ \hline \$90.05 \end{array}$

Challenge Yourself

1. 226
2. 311
3. 132
4. 201
5. 129
6. 45

Lesson 39: Review Practice Sheet

A.
4 4 0 8 5 5 5 3
6 1 4 5 4 3 3 6
5 9 8 9
4 6 1 9

B.

1.	2.	3.	4.	5.
8 1 1~~9~~2 –184 8	7 1 ~~8~~39 –595 244	7 1 4~~8~~5 –57 428	3 1 ~~4~~35 –72 363	6 1 6~~7~~2 –246 426

5.	6.	8.	9.	10.
7 1 9~~8~~7 –69 918	8 1 6~~9~~4 –287 407	7 1 7~~8~~6 –77 9	2 1 ~~3~~58 –63 295	6 1 9~~7~~1 –734 237

C.

1.

H	T	O
8 ~~4~~ – 2	12 ~~3~~ 7	1 4 5
6	5	9

2.

H	T	O
7 ~~8~~ – 4	14 ~~5~~ 6	1 1 2
3	8	9

3.

H	T	O
5 ~~6~~ –	10 ~~1~~ 9	1 2 6
5	1	6

4.

H	T	O
4 ~~5~~ –	13 ~~4~~ 8	1 3 8
4	5	5

D.

1.	2.	3.	4.	5.
5 15 ~~66~~6 –88 578	11 1 ~~12~~7 –49 78	5 11 1 ~~62~~7 –239 388	6 13 1 ~~74~~5 –496 249	8 11 1 ~~92~~4 –437 487

E.

1.	2.
91 236	81 9 1 000
–45 289	–45 000
	46 000
73 561	74 000
–21 982	22 000
	52 000

3.	4.
63 059	63 000
–60 284	–60 000
	3 000
37 221	37 000
–22 784	–23 000
	14 000

F.

0 12 13 ~~13~~41 –587 754	3 12 11 1 ~~43~~21 –1737 2584	61 5~~7~~24 –1543 4181	1 14 1 ~~257~~6 –882 1694
61 947~~3~~ –8365 1108	7991 ~~800~~0 –4484 3516	8 16 9 1 ~~970~~4 –5816 3888	59161 ~~607~~0 –895 5175
8 9 1 $~~90~~.00 –62.50 $27.50	7 9 1 $7~~8.0~~0 –15.95 $62.05	8911121 ~~90 23~~6 –17 878 72 358	3101 ~~41~~ 326 –19 812 21 514

G.

1.		2.	
213	14	9565	2683
–199	+199	–5982	+5982
14	213	2683	8665
4305	1086	67 821	29 696
–3219	+3219	–38 125	+38 125
1086	4305	29 696	67 821
70 701	51 388	82 992	41 983
–19 813	+19 813	–41 989	+41 989
51 388	71 201	41 983	83 972

Mastery Test—Answer Key

Part A

Write the value for the underlined in the following numbers. Write the value in numbers rather than words.

1. 603 <u>7</u>10 100's

2. 3<u>9</u>2 557 10 000's

3. <u>8</u>76 327 100 000's

4. 90<u>9</u> 587 10 000's

Part B

Round each number to the nearest:		10	100	1000
1.	8926	8930	8900	9000
2.	6438	6440	6400	6000
3.	1499	1500	1500	1000
4.	19 281	19 280	19 300	19 000
5.	81 111	81 110	81 100	81 000

Part C

1. a. Estimate the following sums by rounding to the nearest 100.

1.	2.	3.
420	231	7894
261	880	4986
+854	+500	+8921
1600	**1600**	**21800**

b. Estimate the following sums by rounding to the nearest 1000.

1.	2.	3.
3844	32654	48768
2065	48976	122509
+3787	+85609	+ 30127
10000	**168000**	**117000**

Part D

Write the expanded form numbers in standard form (*Hint:* Arrange the numbers first according to their values.)

1. 456 424

50 000	4	6000
	400 000	
400		20

2. 934 876

6		4000
	900 000	
800	70	30 000

3. Write the expanded form of these numbers.

   a. 384 019

   (3 x 100 000) + (8 x 10 000) + (4 x 1000) + (1 x 10) + (9 x 1)
   300 000 + 80 000 + 4000 + 10 + 9

   b. 762 500

   (7 x 100 000) + (6 x 10 000) + (2 x 1000) +(5 x 100)
   700 000 + 60 000 + 2000 + 500

Part E
Write the following as numerals.

1. forty-three thousand three hundred sixty-four

   43 364

2. one hundred eighty-two thousand three hundred fifty-six

   182 356

3. seven hundred six thousand fifty-two

   706 052

4. nine hundred forty thousand eight hundred one

   940 801

5. seven hundred nine thousand

   709 000

6. fifty thousand two hundred eighty-nine

   50 289

7. four hundred thousand fifty

   400 050

8. six hundred thousand

   600 000

Part F

A. **Increase** the following numbers by the amounts shown.

1.	145 926—two	145 928
2.	389 000—six hundreds	389 600
3.	15 034—four hundreds	15 434
4.	2999—one	3000

B. **Decrease** the following numbers by the amount shown.

1.	84 986—sixty	84 926
2.	700 000—three ten thousands	670 000
3.	960 000—three ten thousands	15 434
4.	428 000—one hundred	3000

Part G

Find the answers to the following problems. Show your work. Remember to write your statement answer.

1. Tanya and her friend's camping trip last summer cost $265.34 for food, $68.50 for gas, $105.00 for campsite rental, $48.50 for a canoe rental, and $21.55 for fishing licenses. What were their total expenses?

Statement: $487.34 Tanya and her friend spent $487.34on their camping trip.

---

2. The Canton family needs to know the combined weight of their group. They want to check whether they exceed the weight limit of 350 kg for a small boat they wish to ride in at the lake. Ann weighs 45 kg and her sister, Susan, 30 kg. Their brother Joe weighs 59 kg, their father 89 kg, and his brother 82 kg. Can they safely board this boat? Use subtotals to calculate your answer.

```
  45
  30
 _59   134 kg
+ 89
 _82   171 kg
 305 kg
```

Statement: The Canton family did not exceed the weight limit.

---

2. Mrs. Fisher was given $150.00 to purchase some supplies for the Girl Guide weekend campout. She spent $98.36 on groceries, $19.29 on craft supplies, $13.20 on prizes, and $9.99 on flashlight batteries. Was she owed money by the Girl Guide fund or did she need to pay back any extra? Use subtotals to calculate your answer..

$ 98.36	
19.29	$117.65
13.20	
+ 9.99	$ 23.19
$ 140.84	

Statement: Mrs. Fisher needed to pay back the extra money.

Part H

Add the following numbers.

1. 64
38
92
194

2. 56
84
39
6
185

3. 72
38
49
86
245

4. 638
420
918
264
2240

5. $7.85
9.19
3.16
2.21
$22.41

Part I

A. Complete the fact families by writing the related facts.

1. 8 + 5 = 13
   5 + 8 = 13
   13 – 8 = 5
   13 – 5 = 8

2. 17 – 8 = 9
   17 – 9 = 8
   9 + 8 = 17
   8 + 9 = 17

B. Complete each set of equations.

1. 14 – 8 = 6
   24 – 8 = 16
   34 – 8 = 26
   44 – 8 = 36

2. 12 – 5 = 7
   62 – 5 = 57
   72 – 5 = 67
   82 – 5 = 77

Part J

Subtract. Trade when necessary and show all your work.

1.	2.	3.	4.	5.
85	564	926	563	54
–32	–382	–341	–281	–27
53	182	585	282	27

6.	7.	8.	9.	10.
38	10 306	18 312	172	$8.80
–19	–2568	–9264	–76	–.60
19	7738	9048	96	$8.20

11.	12.	13.	14.	15.
2967	5019	8624	2400	9000
–423	–467	–7999	–1645	– 87
2544	4552	625	755	8913

16.	17.	18.	19.	20.
60 521	64903	$763.51	29 635	21 416
–43 291	–17 621	–291.26	–19 281	–17 219
17 230	47 221	$472.25	10 354	4197

Part K

A. Estimate the answers to the following questions by rounding to the nearest 100.

1.		2.		3.	
7825	7800	5836	5800	6415	5 1 ~~6~~400
–3610	–3600	–4192	–4200	–3905	–3900
	4200		1600		2500

B. Estimate the answers to the following questions by rounding to the nearest 1000.

1.		2.	
79 814	7 1 ~~8~~0 000	93 216	93 000
–52 629	–53 000	–80 371	–53 000
	27 000		13 000

3.		4.	
46 345	3 1 46 000	78 051	78 000
–7917	–8 000	–52 629	–53 000
	38 000		13 000

Part L

Check the following subtraction answers by reversing the order of the numbers and adding. Circle the incorrect answers. Show all your work.

1.	284	96	4.	3845	1850	7.	81306	1994
	−189	+189		−1995	+1995		−79312	+79312
	96	285		1850	3845		1994	81306
2.	7640	3728	5.	2189	657	8.	41191	30448
	−3912	+3912		−1632	+1632		−10843	−10843
	3728	7640		657	2289		30448	41291
3.	9915	1538	6.	7052	2061			
	−8477	+8477		−4991	+4991			
	1538	10015		2061	7052			

Part M

Before solving these problems, think of the key words and phrases in the problems. Read each problem carefully. Show all your work and include a sentence answer.

1. A one-way plane ticket from Seattle to Hawaii is advertised at $362. A return trip cost $39 less each way. How much will the return trip cost?

1. $\begin{array}{r} {\scriptstyle 5\,1} \\ \$3\not{6}1 \\ -\,39 \\ \hline 323 \end{array}$ $\begin{array}{r} \$323 \\ +\,323 \\ \hline \$646 \end{array}$

Statement: The return trip will cost $646.

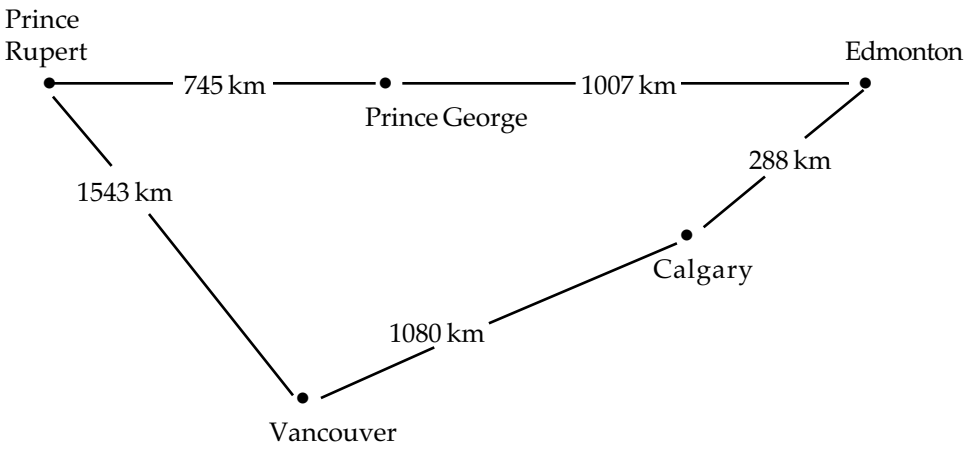
2. Stephanie and her friend planned to drive to a city which was 2895 km away. On the first day they drove 435 km and on the second, 398 km. How much farther do they have to travel to reach their destination?

2.	435	2895
	−398	+833
	833	2062

Statement: They have to travel 2062 km.

---

3. Look at the following map showing distances between cities.



a. How much farther is Vancouver from Prince Rupert than Calgary?

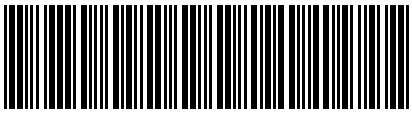
3. a.
$$\begin{array}{r} {\scriptstyle 4\ 1} \\ 1\not{5}43 \\ -1080 \\ \hline 463 \end{array}$$

Statement: Vancouver is 463 km farther from Prince Rupert than Calgary.

b. How much shorter is the distance between Edmonton and Calgary than Edmonton and Prince George?

3. b.
$$\begin{array}{r} {\scriptstyle 9\ 9\ 1} \\ 1007 \\ -288 \\ \hline 719 \end{array}$$

Statement: The distance between Edmonton and Calgary is shorter by 719 km.



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