LETTER HOME

Subtracting Larger Numbers

Dear Family Member:

Students explore various subtraction methods. They apply their own subtraction strategies and have the opportunity to try new ones.

Our goal is for your child to be able to solve problems in a variety of situations. It is important that he or she understands that the traditional approach for solving problems is just one of many acceptable methods of finding the answer. Other problem-solving strategies your child will explore include mental math, estimating, drawing pictures, and using tools such as base-ten pieces and calculators.

Subtraction Strategies Menu

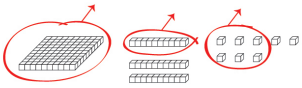
Finding Friendly Numbers

50 – 28

50 – 30 = 20
20 is a reasonable estimate.

Using Base-Ten Pieces

138 – 116

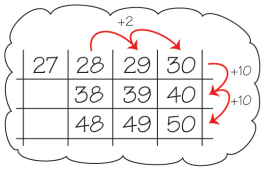


20 + 2 = 22

Counting Up

50 – 28

2 + 20 = 20



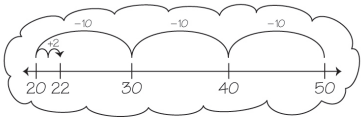
Using Expanded Form

Subtract 39 from 62

62 = 60 + 2 = 50 + 12
39 = 30 + 9 = 30 + 9
20 + 3 = 23

Counting Back

50 – 28 = 22



Using the Compact Method

7 13
8 3
– 2 7
5 6

As we continue to develop subtraction strategies in the classroom, you can provide additional support at home.

- **Discuss Strategies.** Encourage your child to state each new problem in his or her own words. Then, after the problem is solved, ask him or her to talk about the strategies that led to the answer. I hope you enjoy listening to the creative and insightful strategies your child is learning.

Math Facts and Mental Math

Students' fluency with the subtraction facts related to the addition facts in Groups A will be assessed in this unit.

Group A: $1 - 0$, $1 - 1$, $2 - 0$, $2 - 1$, $2 - 2$, $3 - 1$, $3 - 2$, $4 - 1$, $4 - 2$, $4 - 3$, $5 - 2$, $5 - 3$, $6 - 2$, $6 - 4$

You can help your child review these facts using the flash cards the teacher sent home or by making a set of flash cards from index cards or scrap paper. Study the facts in small groups each night. As your child goes through the flash cards, put the cards in three stacks: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.

For Facts I Need to Learn, work on strategies for figuring them out.

For Facts I Can Figure Out, use the flash cards to practice the facts for fluency.

For Facts I Know Quickly, help your child use strategies to solve problems like these using mental math: $22 - 2$ (practices $2 - 2$), $34 - 2$ (practices $4 - 2$).

Grade 2 Math Facts Overview

The goal of the math facts development in *Math Trailblazers* is for students to learn the basic facts efficiently, gain fluency with their use, and retain that fluency over time. A large body of research supports an approach in which students develop strategies for figuring out the facts rather than relying on rote memorization. This not only leads to more effective learning and better retention but also to the development of mental math skills. In fact, too much drill before conceptual understanding may interfere with a child's ability to understand concepts at a later date. Therefore, the teaching of the basic facts in *Math Trailblazers* is characterized by the following elements:

Use of Strategies. Students first approach the basic facts as problems to be solved rather than as facts to be memorized. In all grades, students are encouraged to use strategies to find facts, so they become confident that they can find answers to facts problems that they do not immediately recall. In this way, students learn that math is more than memorizing facts and rules which "you either get or you don't."

Distributed Facts Practice. Students study small groups of facts that can be found using similar strategies. In Second Grade, they practice the addition facts and the related subtraction facts. See Figure 1.

Unit	Subtraction Facts Related to the Addition Facts	Strategies Used	Focus
9	Group A 1 – 0, 1 – 1, 2 – 0, 2 – 1, 2 – 2, 3 – 1, 3 – 2, 4 – 1, 4 – 2, 4 – 3, 5 – 2, 5 – 3, 6 – 2, 6 – 4	Counting On, Zero, Thinking Addition	Use strategies fluently for facts with sums to ten. Develop mental math strategies and number sense and solve fact families for facts with sums more than ten.
10	Group B 3 – 0, 4 – 0, 5 – 1, 5 – 4, 6 – 1, 6 – 5, 7 – 1, 7 – 2, 7 – 5, 7 – 6, 8 – 1, 8 – 2, 8 – 3, 8 – 5, 8 – 6, 8 – 7, 9 – 1, 9 – 8	Counting On, Zero, Thinking Addition	
11	Group C 9 – 2, 9 – 3, 9 – 6, 9 – 7, 10 – 1, 10 – 2, 10 – 3, 10 – 4, 10 – 5, 10 – 6, 10 – 7, 10 – 8, 10 – 9, 11 – 2, 11 – 3, 11 – 4, 11 – 5, 11 – 6, 11 – 7, 11 – 8, 11 – 9	Making Ten, Using Ten, Thinking Addition	
12	Group D 6 – 3, 7 – 3, 7 – 4, 8 – 4, 9 – 4, 9 – 5, 12 – 6, 13 – 6, 13 – 7, 14 – 7, 15 – 7, 15 – 8, 16 – 8, 19 – 10, 19 – 9, 20 – 10	Using Doubles, Thinking Addition	
13	Group E 11 – 1, 11 – 10, 12 – 2, 12 – 3, 12 – 4, 12 – 5, 12 – 7, 12 – 8, 12 – 9, 12 – 10, 13 – 3, 13 – 4, 13 – 5, 13 – 8, 13 – 9, 13 – 10, 14 – 5, 14 – 9	Making Ten, Using Ten, Thinking Addition	
14	Group E 14 – 4, 14 – 6, 14 – 8, 14 – 10, 15 – 5, 15 – 6, 15 – 9, 15 – 10, 16 – 6, 16 – 7, 16 – 9, 16 – 10, 17 – 7, 17 – 8, 17 – 9, 17 – 10, 18 – 8, 18 – 9, 18 – 10	Making Ten, Using Ten, Thinking Addition	
15	All Facts		

Figure 1: *Development of related subtraction facts in Grade 2*

Practice in Context. Students continue to practice all the facts as they use them to solve problems, investigate math concepts, and play math games.

Appropriate Assessment. Students are regularly assessed to see if they can find answers to facts problems quickly and accurately and retain this skill over time. They take a short quiz on each group of facts. Students will record their progress on their *Subtraction Facts I Know* charts to determine which facts they need to study.

A Multiyear Approach. In Grades 1 and 2, the curriculum emphasizes the use of strategies that enable students to develop proficiency with addition and subtraction facts by the end of Second Grade. Students focus on gaining proficiency with the facts with sums to ten in Grade 1 and on facts with sums more than 10 in Grade 2. In Grade 3, students review the subtraction facts and develop proficiency with the multiplication facts. In Grade 4, the addition and subtraction facts are checked, the multiplication facts are reviewed, and students develop fluency with the division facts. In Grade 5, students review the multiplication and division facts.

Facts Will Not Act as Gatekeepers. Use of strategies and calculators allow students to continue to work on interesting problems and experiments while learning the facts. Lacking quick recall of the facts does not prevent students from learning more complex mathematics.

Sincerely,

Name _____ Date _____

Unit 9: Home Practice

Part 1 Related Facts: Group A

1. A. $6 - \square = 2$

$2 + \square = 6$

B. $5 - \square = 2$

$3 + \square = 5$

C. $\square - 1 = 3$

$3 + 1 = \square$

2. A. $\square - 1 = 1$

$1 + 1 = \square$

B. $\square - 1 = 2$

$2 + 1 = \square$

C. $1 - \square = 1$

$1 + \square = 1$

3. Sam has four coins in his pocket. He has 40¢.

A. Draw four coins that total 40¢.

B. Show another way to make 40¢ using four coins.

Name _____ Date _____

Part 2 Addition Strategies

Solve. Use the *Addition Strategies Menu* in the *Student Activity Book* Reference section.

A.
$$\begin{array}{r} 86 \\ +\ 47 \\ \hline \end{array}$$

B. 43 + 19 =

C. 36 + 27 =

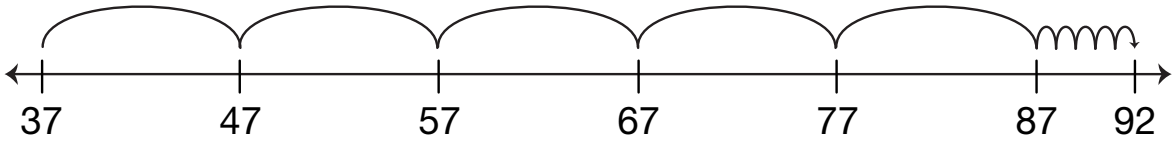
D.
$$\begin{array}{r} 17 \\ +\ 96 \\ \hline \end{array}$$

E. 59 + 25 =

Name _____ Date _____

Part 3 How Did They Solve

1. A. Carla used a number line to solve 37 + 55. Write a number sentence that matches Carla's hops.



Number sentence _____

B. Solve Carla's problem another way.

2. A. Jacob solved 65 − 47. Show or tell Jacob's mistake.

$$\begin{array}{r} 65 = 60 + 5 \\ \underline{47} = \underline{40 + 7} \\ 20 + 12 = 32 \end{array}$$

B. Use Jacob's strategy to find the correct answer.

Name _____ Date _____

Part 4 More Addition

1. Complete each number sentences to make it true.

A. 17 + 23 = 20 + ☐

B. 23 + 6 = 9 + ☐

C. 42 + 13 = 15 + ☐

D. 57 + 13 = 10 + 10 + ☐

2. Use the information in the menu to answer Questions 2A and 2B.

Myrna's Lunch Stop

Pizza Slice	85¢
Hamburger	99¢
Hot Dog	79¢
Soup	60¢
Chips	50¢
Fruit	25¢
Soda	40¢

A. If you buy a pizza slice and pay with $1.00, what change will you get back? Show or tell how you decided.

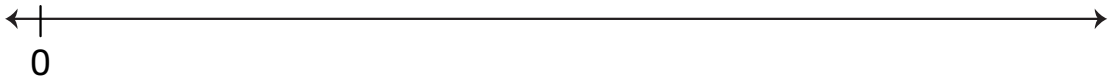
B. How much money will you need to purchase a pizza slice, chips, and a soda? Show how you solved the problem.

Name _____ Date _____

Part 5 Show 238

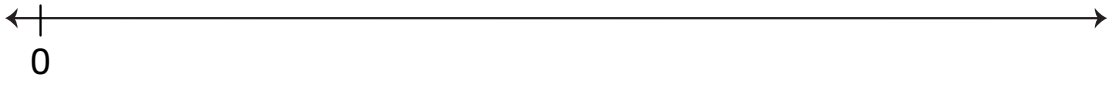
Show 238 several different ways.

1. Show a base-ten hopper hopping on a number line.



Number sentence _____

2. Show a base-ten hopper hopping on a number line a different way.



Number sentence _____

3. Use base-ten shorthand.

Number sentence _____

4. Circle the number sentences that also show 238.

200 + 30 + 38	23 + 8	200 + 38
230 + 8	200 + 8 + 30	200 + 20 + 18

Name _____ Date _____

Part 6 Addition Strategies

1. Solve the addition problem. Start each solution a different way.

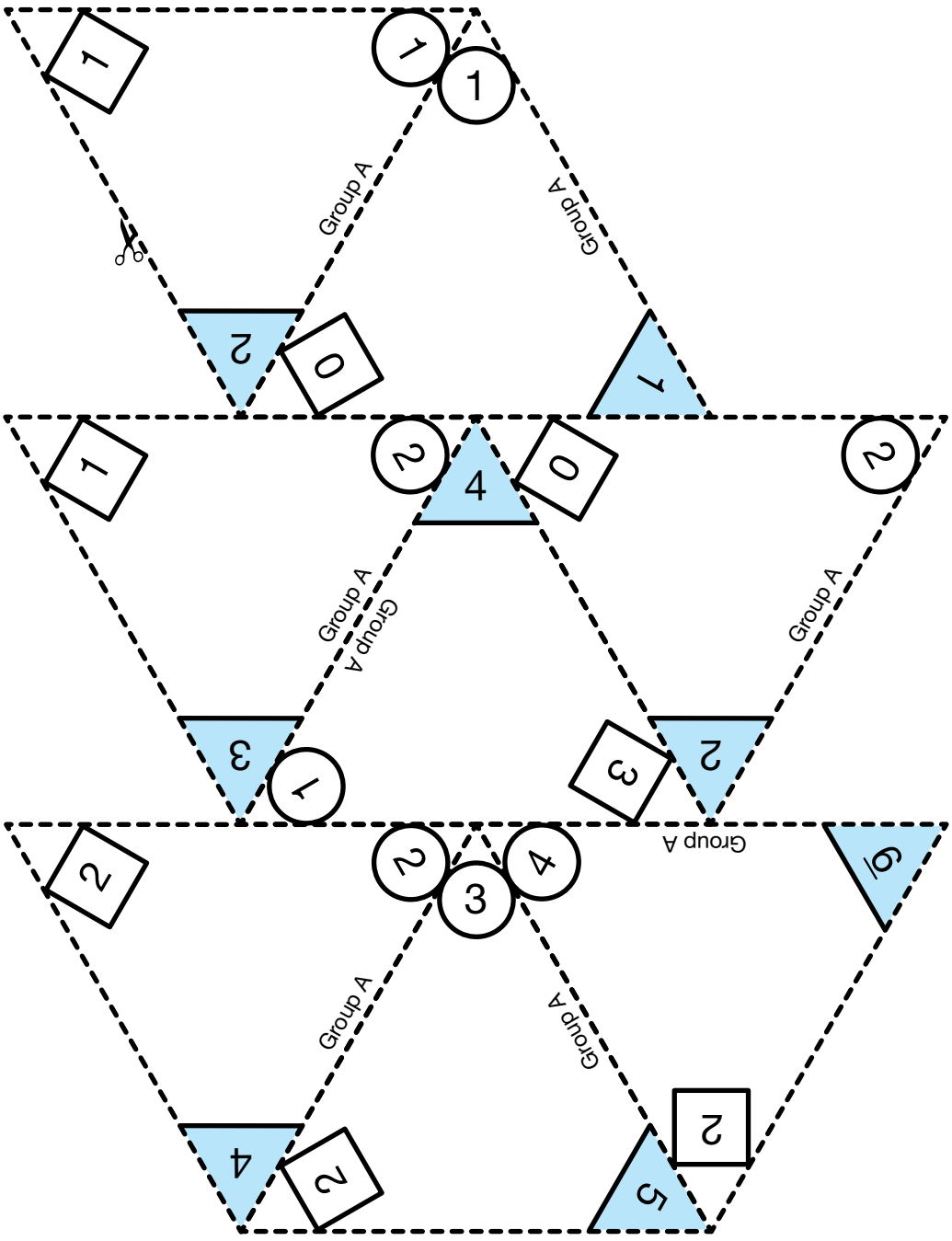
One Stategy	Another Stategy
A. 56 + 24 Start by adding 6 + 4	**B.** 56 + 24 Start by adding 56 + 4

2. Finish each students' work. Then use the same strategy to solve a different problem.

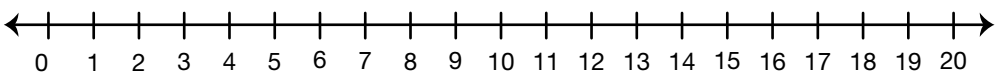
Complete the Problem	Use the Strategy
A. Finish Tara's work. □ 1 4 6 + 4 5 □□ 1	**B.** Solve it Tara's way. 237 + 53
D. Finish Nichola's work. 252 + 139 11 80 □ □	**D.** Solve it Nichola's way. 219 + 187

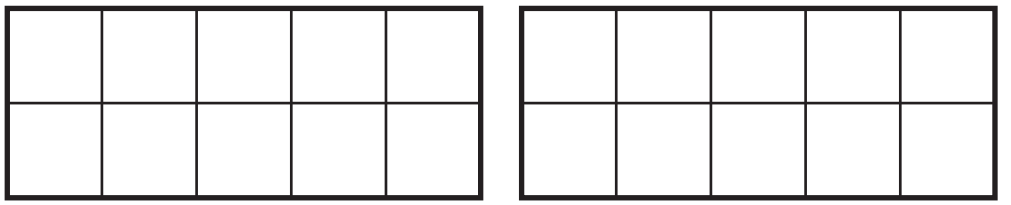
Triangle Flash Cards: Group A

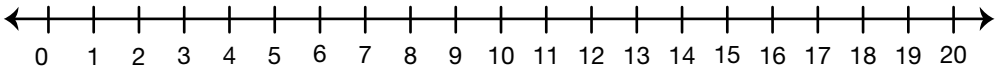
- To practice an addition fact, cover the corner with the highest number. Add the two uncovered numbers.
- To practice a subtraction fact, cover one of the smaller numbers and subtract from the highest number.

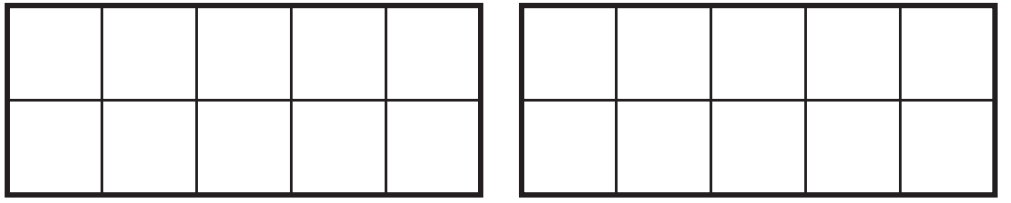


Show Your Strategy Cards

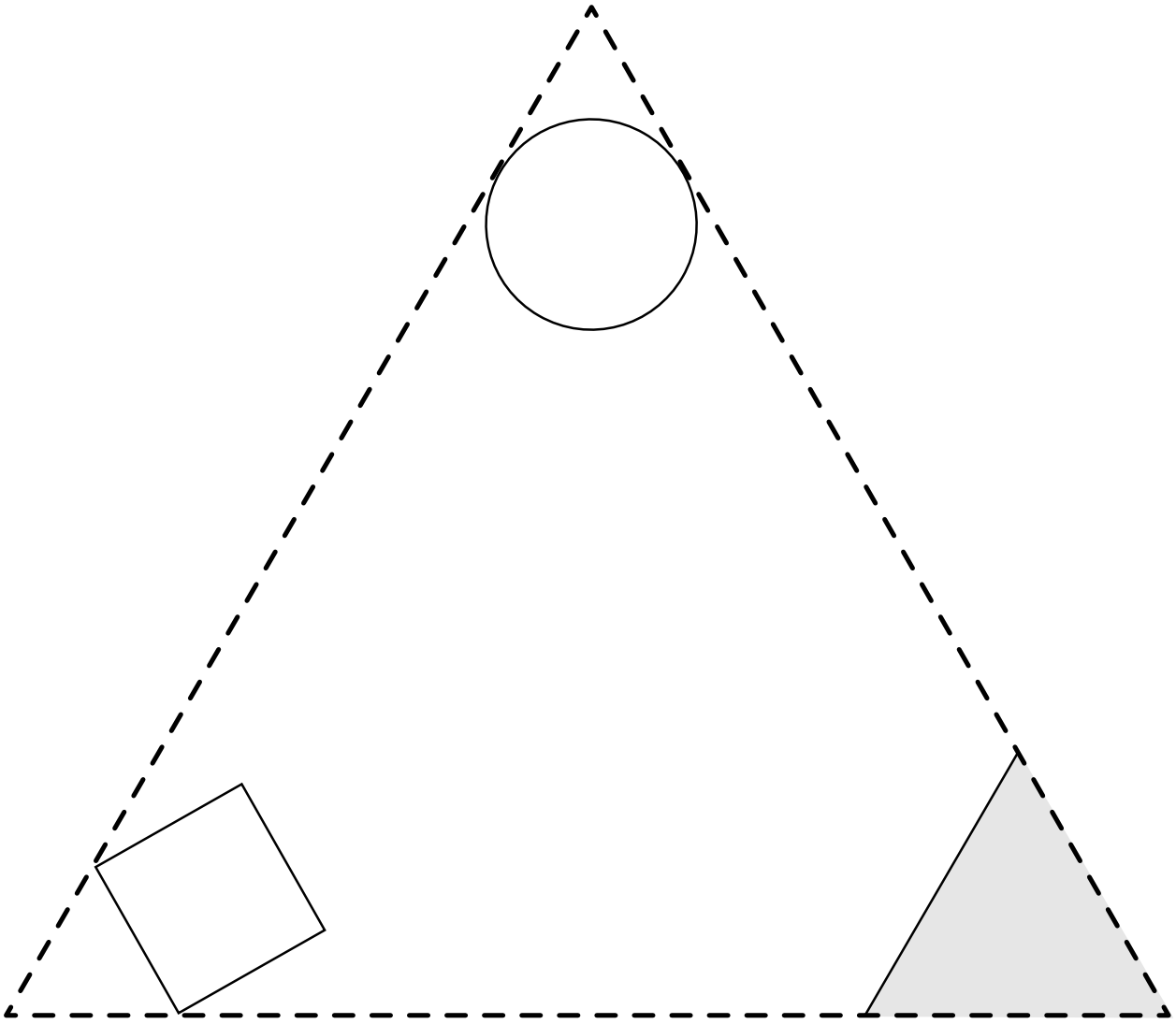








Large Triangle Flash Card



Name _____ Date _____

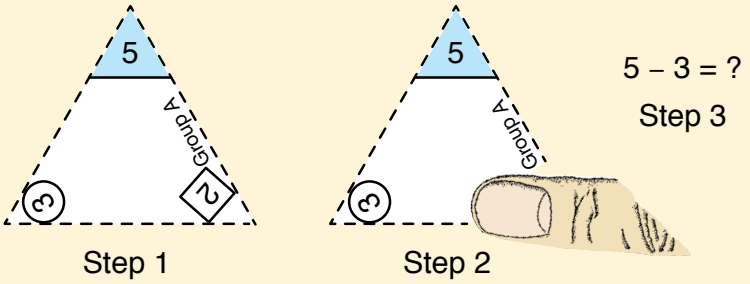
Triangle Flash Cards: Note Home

Homework

Dear Family Member:

Your child is beginning a systematic study of the subtraction facts. He or she will study a small group of facts at a time using *Triangle Flash Cards*. These are the same *Triangle Flash Cards* that your child used to practice the addition facts. They are used slightly differently when practicing the subtraction facts.

- Choose a card and cover the corner with the square. Ask your child to subtract the two uncovered numbers.



- As your child goes through the flash cards, put the cards in three piles: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.
- Circle the facts in the Facts I Know Quickly pile on the *Subtraction Facts I Know* chart.
- Go through the cards again, this time covering the corner with the circle. Separate the cards into three piles, and circle the facts in the Facts I Know Quickly pile on the *Subtraction Facts I Know* chart.
- Clip the cards in the Facts I Know Quickly piles together and place them into an envelope.
- Practice the facts in the last two piles again. Discuss strategies that are useful for learning these facts.
- Keep these tools at home to help your child study these facts for a few minutes each day.

Thank you.

Name _____ Date _____

Subtraction Facts I Know

Circle the subtraction facts you know and can answer quickly.

0 − 0 = 0	1 − 0 = 1	2 − 0 = 2	3 − 0 = 3	4 − 0 = 4	5 − 0 = 5	6 − 0 = 6	7 − 0 = 7	8 − 0 = 8	9 − 0 = 9
1 − 1 = 0	2 − 1 = 1	3 − 1 = 2	4 − 1 = 3	5 − 1 = 4	6 − 1 = 5	7 − 1 = 6	8 − 1 = 7	9 − 1 = 8	10 − 1 = 9
2 − 2 = 0	3 − 2 = 1	4 − 2 = 2	5 − 2 = 3	6 − 2 = 4	7 − 2 = 5	8 − 2 = 6	9 − 2 = 7	10 − 2 = 8	11 − 2 = 9
3 − 3 = 0	4 − 3 = 1	5 − 3 = 2	6 − 3 = 3	7 − 3 = 4	8 − 3 = 5	9 − 3 = 6	10 − 3 = 7	11 − 3 = 8	12 − 3 = 9
4 − 4 = 0	5 − 4 = 1	6 − 4 = 2	7 − 4 = 3	8 − 4 = 4	9 − 4 = 5	10 − 4 = 6	11 − 4 = 7	12 − 4 = 8	13 − 4 = 9
5 − 5 = 0	6 − 5 = 1	7 − 5 = 2	8 − 5 = 3	9 − 5 = 4	10 − 5 = 5	11 − 5 = 6	12 − 5 = 7	13 − 5 = 8	14 − 5 = 9
6 − 6 = 0	7 − 6 = 1	8 − 6 = 2	9 − 6 = 3	10 − 6 = 4	11 − 6 = 5	12 − 6 = 6	13 − 6 = 7	14 − 6 = 8	15 − 6 = 9
7 − 7 = 0	8 − 7 = 1	9 − 7 = 2	10 − 7 = 3	11 − 7 = 4	12 − 7 = 5	13 − 7 = 6	14 − 7 = 7	15 − 7 = 8	16 − 7 = 9
8 − 8 = 0	9 − 8 = 1	10 − 8 = 2	11 − 8 = 3	12 − 8 = 4	13 − 8 = 5	14 − 8 = 6	15 − 8 = 7	16 − 8 = 8	17 − 8 = 9
9 − 9 = 0	10 − 9 = 1	11 − 9 = 2	12 − 9 = 3	13 − 9 = 4	14 − 9 = 5	15 − 9 = 6	16 − 9 = 7	17 − 9 = 8	18 − 9 = 9
10 − 10 = 0	11 − 10 = 1	12 − 10 = 2	13 − 10 = 3	14 − 10 = 4	15 − 10 = 5	16 − 10 = 6	17 − 10 = 7	18 − 10 = 8	19 − 10 = 9

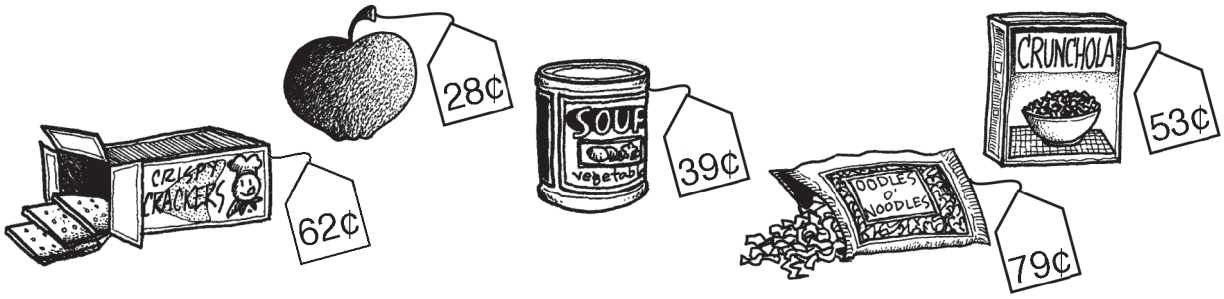
Name _____ Date _____

Sorting Board

Facts I Know Quickly	Facts I Can Figure Out	Facts I Need to Learn

Name _____ Date _____

Thinking about Subtraction



$ 1.00
–
_____

$ 1.00
–
_____

Name _____ Date _____

Try It Another Way

Homework

Dear Family Member:

We are learning subtraction of two-digit numbers. Your child is already able to use different mental strategies as well as the number line, 200 Chart, and counting strategies to solve problems. Ask your child to explain his or her strategies for solving one or more of the problems.

Thank you.

Choose a strategy to solve each problem. Then solve it another way.

1.
$$\begin{array}{r} 37 \\ -\ 12 \\ \hline \end{array}$$

One Way:

Another Way:

Name _____ Date _____

2.
$$\begin{array}{r} 66 \\ -\ 58 \\ \hline \end{array}$$

One Way:

Another Way:

3.
$$\begin{array}{r} 42 \\ -\ 25 \\ \hline \end{array}$$

One Way:

Another Way:

Name _____ Date _____

At the Playground

Homework

Dear Family Member:

Encourage your child to tell different ways that he or she is able to solve each of the problems.

Thank you.

Solve the problems. Show or tell how you solved each problem.

1. There are 60 children on the playground. 33 are boys and the rest are girls. How many of the children are girls?

Number sentence _____

2. Of the 60 children, there are 25 jumping rope. How many are not jumping rope?

Number sentence _____

Name _____ Date _____

3. In the morning there were 60 children on the playground. By 1:00 some of the children went home and there were 46 children left. How many went home?

Number sentence _____

4. There are 34 children by the swing set. There are 19 fewer children by the slide. How many children are by the slide?

Number sentence _____

5. There are 32 children playing tag and 16 children jumping rope. How many more children are playing tag?

Number sentence _____

Name _____ Date _____

They Need Your Advice

Jason and Emily are solving the pretzel problem. Jason says,

Why should I estimate? I do not have time to estimate because I like to be the first one done. I think $97 - 38 = 135$.

Jason

What would you say to Jason?

Emily says,

I do not like to estimate because my estimates are not exactly right. I only like to find exact answers. When I hear the exact answer, I want to go back and change my estimate.

Emily

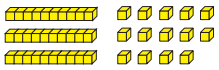
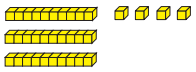
What would you say to Emily?

Name _____ Date _____

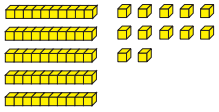
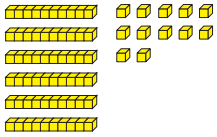
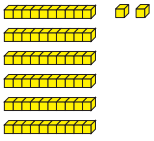
Matching Numbers

Homework

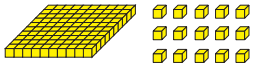
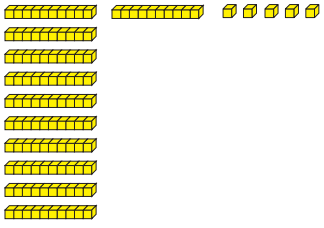
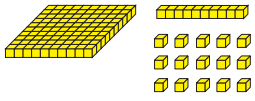
Which two sets of base-ten pieces show the same number? Draw a circle around the two that are the same.

1. **A.**  **B.**  **C.** 

What is the number? _____

2. **A.**  **B.**  **C.** 

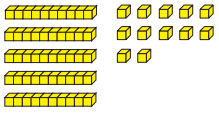
What is the number? _____

3. **A.**  **B.**  **C.** 

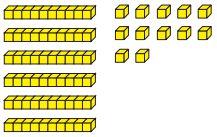
What is the number? _____

Name _____ Date _____

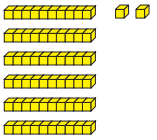
4. Write a number sentence to match the base-ten pieces.

A. 

Number sentence _____

B. 

Number sentence _____

C. 

Number sentence _____

5. Write each number in expanded form.

For example, 123 is 100 + 20 + 3.

A. 76 = _____

B. 249 = _____

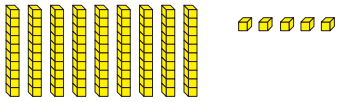
C. 112 = _____

Name _____ Date _____

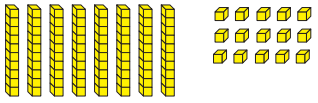
Expanded Form Subtraction

1. Richard solved 95 − 49. He estimated a difference of about 50. Do you agree? Show or tell why or why not.

2. Richard put these base-ten pieces down to show 95:

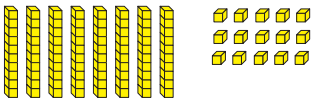


To subtract 49, Richard had to make a trade. After trading he had these pieces:



Where did he get the 15 bits?

3. Use Richard's base-ten pieces to show 95 − 49.



95 − 49 = ☐

4. **A.** Richard started to use expanded form to solve 95 − 49. Help him finish his solution.

95 = 90 + 5 = 80 + 15

49 = _____

B. Why did Richard write 15?

Name _____ Date _____

5. Do you think your answer to Question 4 is correct? How can your answers in Questions 1 and 3 help you check your calculations in Question 4?

6. Show how to use addition to check your answer in Question 4.

Expanded Form Subtraction Feedback Box	**Expectation**	**Check In**	**Comments**
Use and apply place value concepts. [Q# 1–4]	E1		
Represent subtraction problems using base-ten pieces. [Q# 2]	E2		
Subtract multidigit numbers using base-ten pieces. [Q# 3]	E3		
Subtract multidigit numbers using the expanded-form method. [Q# 3–4]	E4		
Estimate differences using mental math strategies. [Q# 1]	E5		

	Yes . . .	**Yes, but . . .**	**No, but . . .**	**No. . .**
MPE3. Check for reasonableness. I look back at my solution to see if my answer makes sense. If it does not, I try again. [Q# 5]				
MPE4. Check my calculations. If I make mistakes, I correct them. [Q# 5–6]				

Name _____ Date _____

Expanded Form Subtraction Practice

Dear Family Member:

Your child has been using a variety of strategies to solve subtraction problems. One of the paper-and-pencil methods introduced is the expanded-form method. Expanded form shows a number expanded into an addition statement. Seventy-three in expanded form is 70 + 3. One hundred thirty-five in expanded form is 100 + 30 + 5. It could also be written as 100 + 20 + 15 = 135.

Thank you.

1. Write the numbers in expanded form. Think about base-ten pieces.

A. 94 = _____

B. 285 = _____

C. 103 = _____

D. 117 = _____

2. Circle the true number sentences.

A. 45 = 40 + 5

B. 70 + 2 = 60 + 12

C. 106 = 10 + 6

D. 200 + 40 + 5 = 100 + 140 + 5

E. 320 = 300 + 2

F. 253 = 200 + 40 + 13

Name _____ Date _____

3. Chris used expanded form to solve 86 − 54.

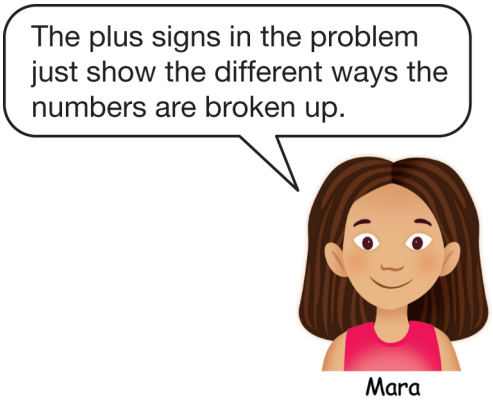
86 = 80 + 6
54 = 50 + 4
30 + 2 = 32

Solve 98 − 25 using expanded form.

98 = _____ + _____

25 = _____ + _____

4. **A.** Mara started to use expanded form to solve a 72 − 36. Finish Mara's work.



72 = 70 + 2 = 60 + 12
36 = 30 + 6 = 30 + 6

____ + ____ = _____

B. Does 70 + 2 = 60 + 12? _____

C. Explain why Mara wrote 60 + 12.

5. Use the expanded form method to solve 82 − 47.

82 = _____ + _____ = _____ + _____

47 = _____ + _____ = _____ + _____

Name _____ Date _____

Solve and Check

Homework

Dear Family Member:

Your child has been practicing a variety of subtraction problem solving methods and strategies. The goal is to be able to have many ways to find answers and solve problems in a variety of situations. An example of the expanded-form method for subtraction is shown below.

Expanded form shows a number expanded into an addition statement. Note how the hundreds, tens, and ones are aligned.

Students have also been using addition to check their subtraction. If they add the number they took away back to their answer, they should get the number they started out with.

Expanded Form Method to solve 167 − 129:

$167 = 100 + 60 + 7 = 100 + 50 + 17$

$\underline{129 = 100 + 20 + 9 = 100 + 20 + \ \ 9}$

$30 + \ \ 8 = 38$

Thank you.

1. Circle the true number sentences.

A. $81 = 70 + 11$

B. $165 = 150 + 15$

C. $128 = 100 + 10 + 18$

D. $205 = 100 + 10 + 15$

E. $53 = 5 + 30$

F. $117 = 100 + 17$

Name _____ Date _____

2. Use expanded form to solve each problem.

A. 145 − 132

145 = _____ + _____ + _____

132 = _____ + _____ + _____

B. 95 − 28

95 = _____ + _____ + _____

28 = _____ + _____ + _____

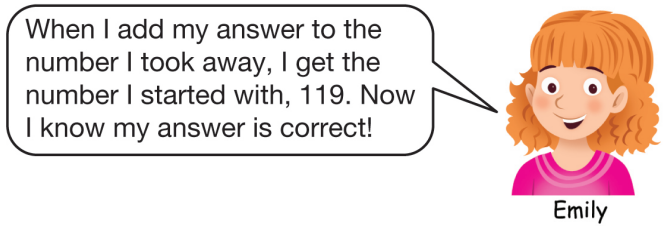
C. 74 − 46

74 = _____ + _____ + _____

46 = _____ + _____ + _____

3. Emily solved 119 − 57. Her answer was 62. She used addition to check her subtraction.

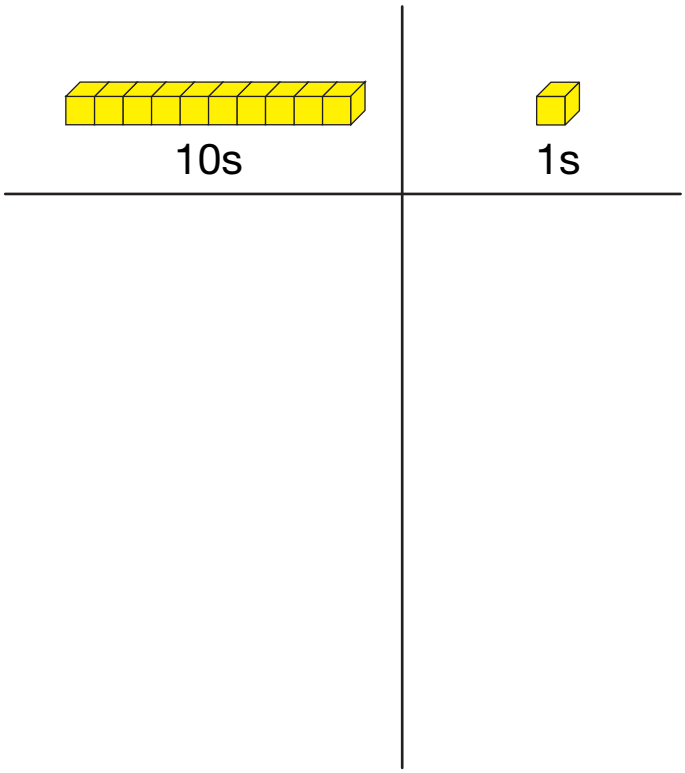
62 (my answer)
+ 57 (the number I took away)
119 (the number I started with)



Show how to use addition like Emily to check the problem in Question 2C.

Name _____ Date _____

Base-Ten Recording Sheet



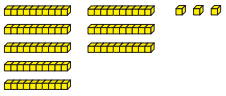
Name _____ Date _____

Record Your Subtraction

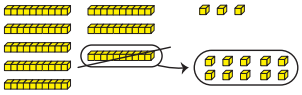
Homework

Maria wanted to solve 83 − 54 with base-ten pieces and a recording sheet. She displays 8 skinnies and 3 bits.

Maria's work



10s	1s
8	3
− 5	4



10s	1s
~~8~~ 7	~~3~~ 13
− 5	4

10s	1s
~~8~~ 7	~~3~~ 13
− 5	4
2	9

1. Show and tell a family member how Maria recorded that she traded one skinny for ten bits.

Name _____ Date _____

2. Solve these problems Maria's way. Think of base-ten pieces as you record your trades.

A.

10s	1s
3	9
– 2	4

B.

10s	1s
7	3
– 4	5

C.

10s	1s
5	2
– 2	9

D.

10s	1s
8	7
– 2	6

E.

10s	1s
8	6
– 4	8

F.

100s	10s	1s
2	5	4
– 1	1	6

Name _____ Date _____

Practice Compact Subtraction

Solve these problems:

A.
$$\begin{array}{r} 86 \\ -\ 42 \\ \hline \end{array}$$

B.
$$\begin{array}{r} 56 \\ -\ 39 \\ \hline \end{array}$$

C.
$$\begin{array}{r} 75 \\ -\ 48 \\ \hline \end{array}$$

D.
$$\begin{array}{r} 57 \\ -\ 23 \\ \hline \end{array}$$

E.
$$\begin{array}{r} 53 \\ -\ 49 \\ \hline \end{array}$$

F.
$$\begin{array}{r} 284 \\ -\ 175 \\ \hline \end{array}$$

G. Explain a way to do Question F in your head.

_____

_____

Name _____ Date _____

Check Subtraction with Addition

Homework

Dear Family Member:

In this homework students will practice using addition to check subtraction problems. If you subtract something and then add it back, you should get what you started with. For example, 25 – 7 = 18. Adding 7 back to 18 gives you 25, the number you started with. If you had gotten something else, you would know there was a mistake. Please help your child use addition to check subtraction problems.

Thank you.

1. John solved a subtraction problem. Then he added his answer to the number he subtracted. He knew he made a mistake. How did he know that?

John's solution:

$$\begin{array}{r} 72 \\ -\,43 \\ \hline 31 \end{array}$$

John's check:

$$\begin{array}{r} 31 \\ +\,43 \\ \hline 74 \end{array}$$

2. John solved another problem. He checked it with addition. Use his addition to decide whether his answer is correct. How do you know?

John's solution:

$$\begin{array}{r} 97 \\ -\,62 \\ \hline 35 \end{array}$$

John's check:

$$\begin{array}{r} 35 \\ +\,62 \\ \hline 97 \end{array}$$

Name _____ Date _____

3. John solved some more subtraction problems. Check his answers with addition. If an answer is wrong, rewrite the subtraction problem and find the correct answer. Check with addition.

A.

$$\begin{array}{r} 56 \\ -\,13 \\ \hline 43 \end{array}$$

B.

$$\begin{array}{r} 82 \\ -\,59 \\ \hline 35 \end{array}$$

4. Solve each problem. Check with addition.

A.

$$\begin{array}{r} 57 \\ -\,32 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 332 \\ -\,118 \\ \hline \end{array}$$

Name _____ Date _____

Choose Which Way to Subtract

Homework

Dear Family Member:

After your child has completed these problems, ask him or her to choose one problem and explain the steps taken to solve it.

Thank you.

Paper-and-Pencil Ways to Subtract

Expanded Form

$$\begin{array}{r} 75 = 70 + 5 = 60 + 15 \\ \underline{28 = 20 + 8 = 20 + 8} \\ 40 + 7 = 47 \end{array}$$

Compact

$$\begin{array}{r} {\scriptstyle 6\,15} \\ \not{7}\not{5} \\ -\ 28 \\ \hline 47 \end{array}$$

Solve each problem using a paper-and-pencil way. Choose each way at least once. Estimate first to make sure your answer is reasonable.

A. 79 − 24 =

Estimate:

B.
$$\begin{array}{r} 66 \\ -\ 37 \\ \hline \end{array}$$

Estimate:

Name _____ Date _____

C. 159 − 125

Estimate:

D. 172
− 137

Estimate:

E. Choose one problem. Show how you estimated to check the reasonableness of your answer.

What Went Wrong

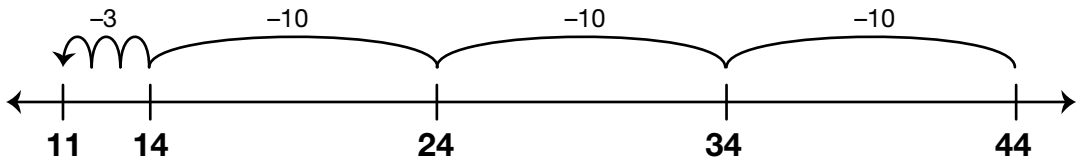
1. **Tanya**

$$\begin{array}{r} 44 \\ -\ 27 \\ \hline 23 \end{array}$$

2. **Ming**

$$\begin{array}{r} {\scriptstyle 14} \\ 4\not{4} \\ -\ 27 \\ \hline 27 \end{array}$$

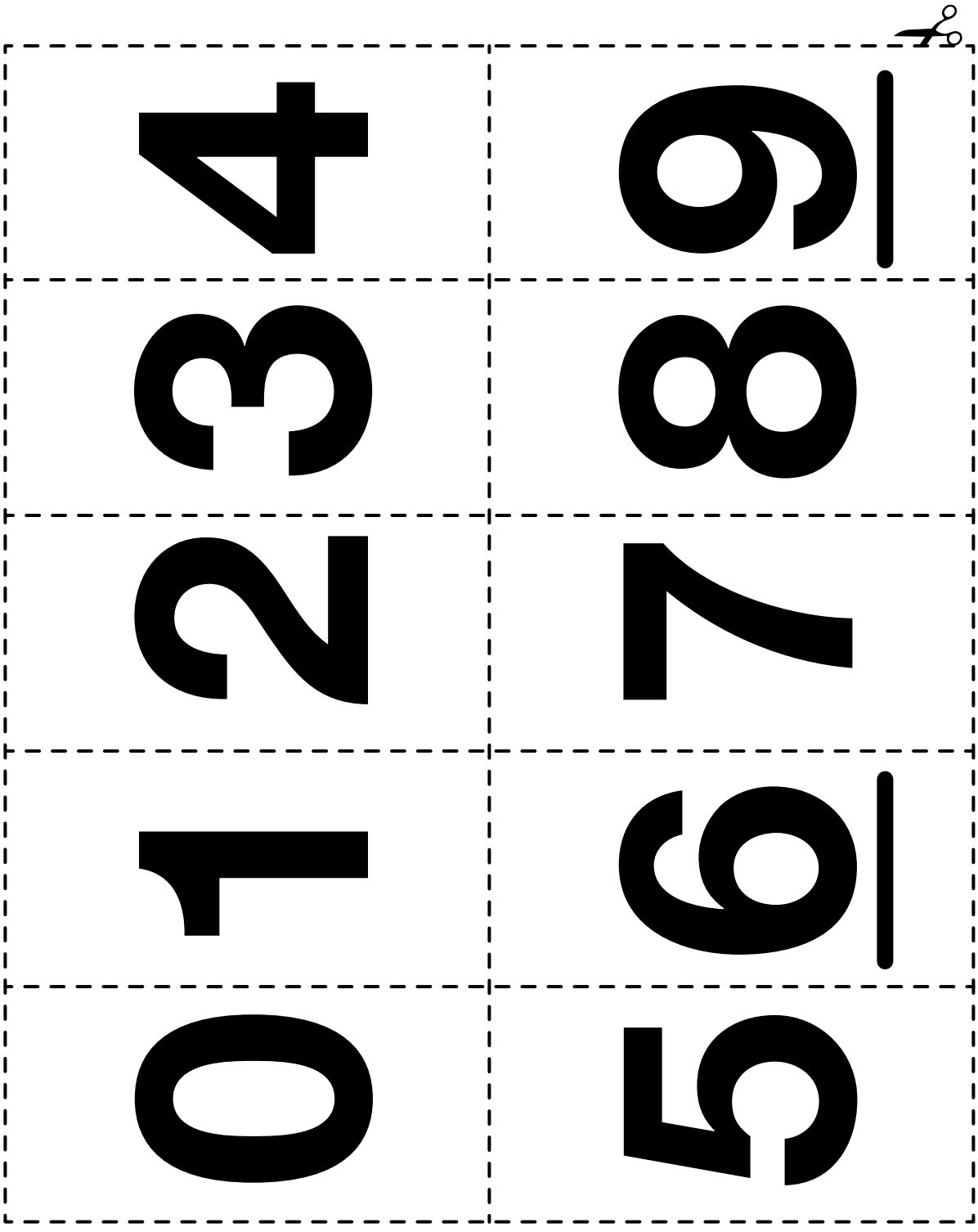
3. **Jerome**

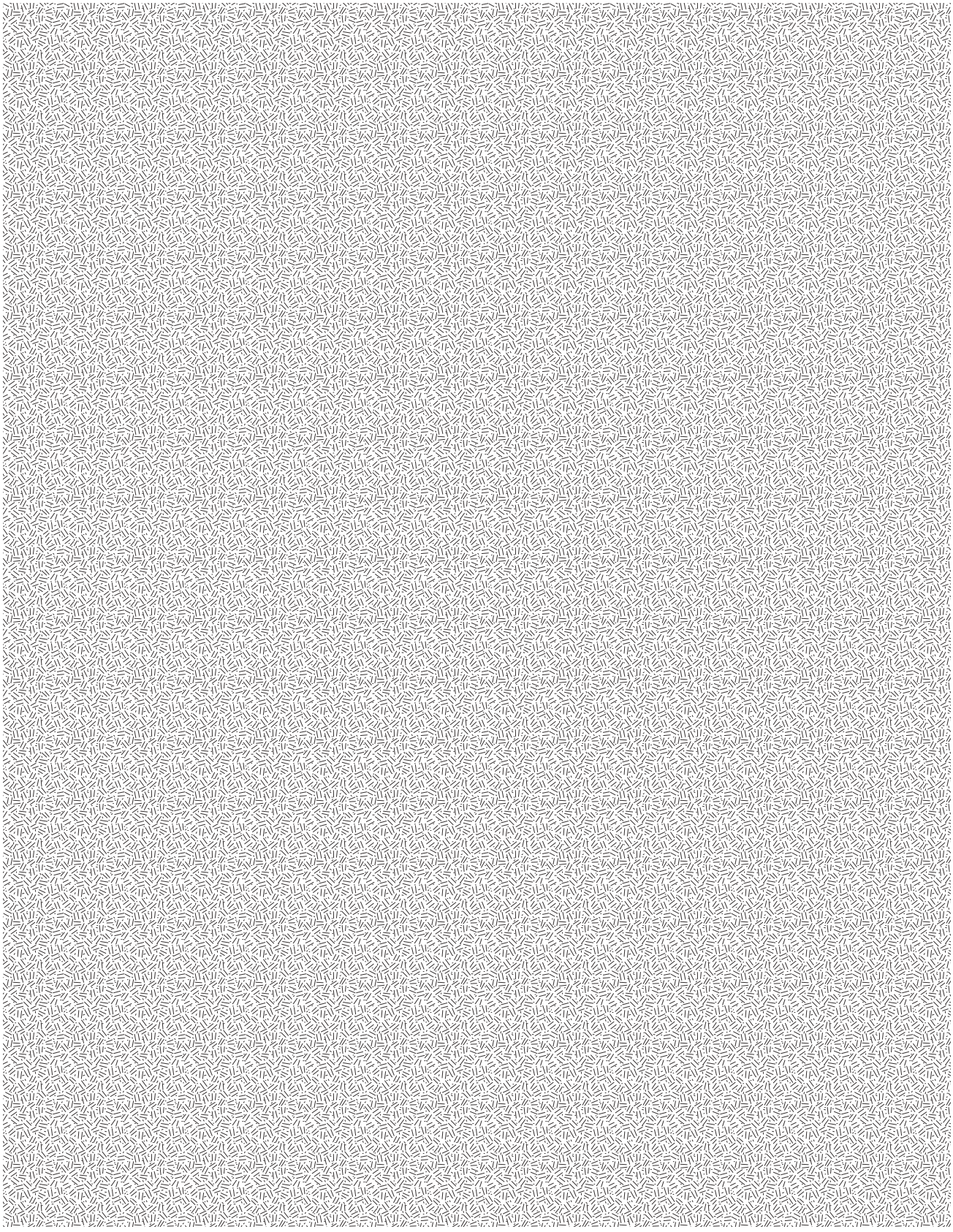


$44 - 27 = 11$

Name _____ Date _____

Digit Cards 0–9





Name _____ Date _____

My Favorite Way

Homework

Dear Family Member:

Students should have a collection of methods that they find useful for solving problems, and they should understand the methods described by others. Students who are confident in using a variety of strategies will be able to begin to choose the strategy most efficient for any given problem. Please allow your child to explain his or her favorite subtraction strategy to you.

Thank you.

Each of the students below used their favorite way to subtract. Finish their work. Check it with addition.

1. 124 – 115 =

Check it with addition:

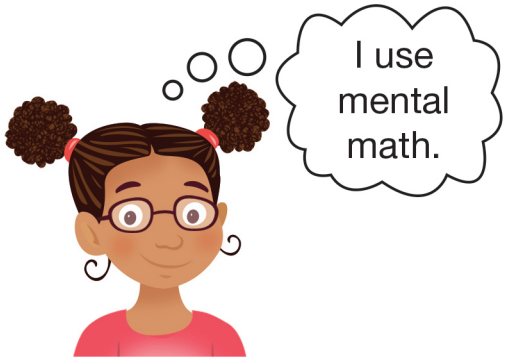
Shannon's method:

$$\begin{array}{r} 124 \\ -\ 115 \\ \hline \end{array}$$

2. 203 – 97 =

Check it with addition:

Tanya's method:



Name _____ Date _____

3. 82 – 37 = Check it with addition:

Chris's method:

82 = 80 + 2 = _____ + _____

37 = _____ + _____ = _____ + _____

4. **A.** Use your favorite subtraction strategy to solve 153 − 127. Show your work.

B. Check your work with addition.

C. Why is this way your favorite?

D. Do you think it was an efficient way to solve this problem? Why or why not?

Snack Shop Sample

You have $1.25. Do you have enough money to buy the items listed?

	Price
Carrot Sticks	29¢
Potato Chips	25¢
Small Lemonade	55¢

Estimate: Yes _____ No _____

Total: _____

How much more money do you need? _____

or

How much change will you get? _____

Shooting Star Snack Shop

Customer's Name: _____

Item	Price (¢)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
Total	_____

Change due _____

Name _____ Date _____

More Snack Shop Carryouts

Homework

Solve the problems any way you choose.

1. You have 98¢. Do you have enough money to buy the items listed below?

Bagel	29¢
Large Milk	55¢

Estimate: Yes ____ No ____

Total: _____

How much more money do you need? _____

or

How much change will you get?

_____

Name _____ Date _____

2. You have 95¢. Do you have enough money to buy the items listed below?

Pizza Slice	79¢
Carrot Sticks	29¢

Estimate: Yes ____ No ____

Total: _____

How much more money do you need? _____

or

How much change will you get?

_____

3. You have $2.50. Choose 2–5 items from the *Shooting Star Snack Shop Children's Menu* from the *Student Activity Book* to complete the bill below.

Shooting Star Snack Shop

Customer's Name: _____

Item	Price (¢)
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
Total	_____

Change due _____