LETTER HOME

Subtracting Larger Numbers

Dear Family Member:

Multidigit Subtraction. In this unit, students focus on developing strategies to subtract multidigit numbers. Students expand their mental math strategies and develop paper-and-pencil methods. After exploring a variety of invented strategies and paper-and-pencil methods, students develop a strategies menu. See Figure 1. The menu serves as a reminder, helps student make connections among strategies, and encourages students to choose appropriate strategies.

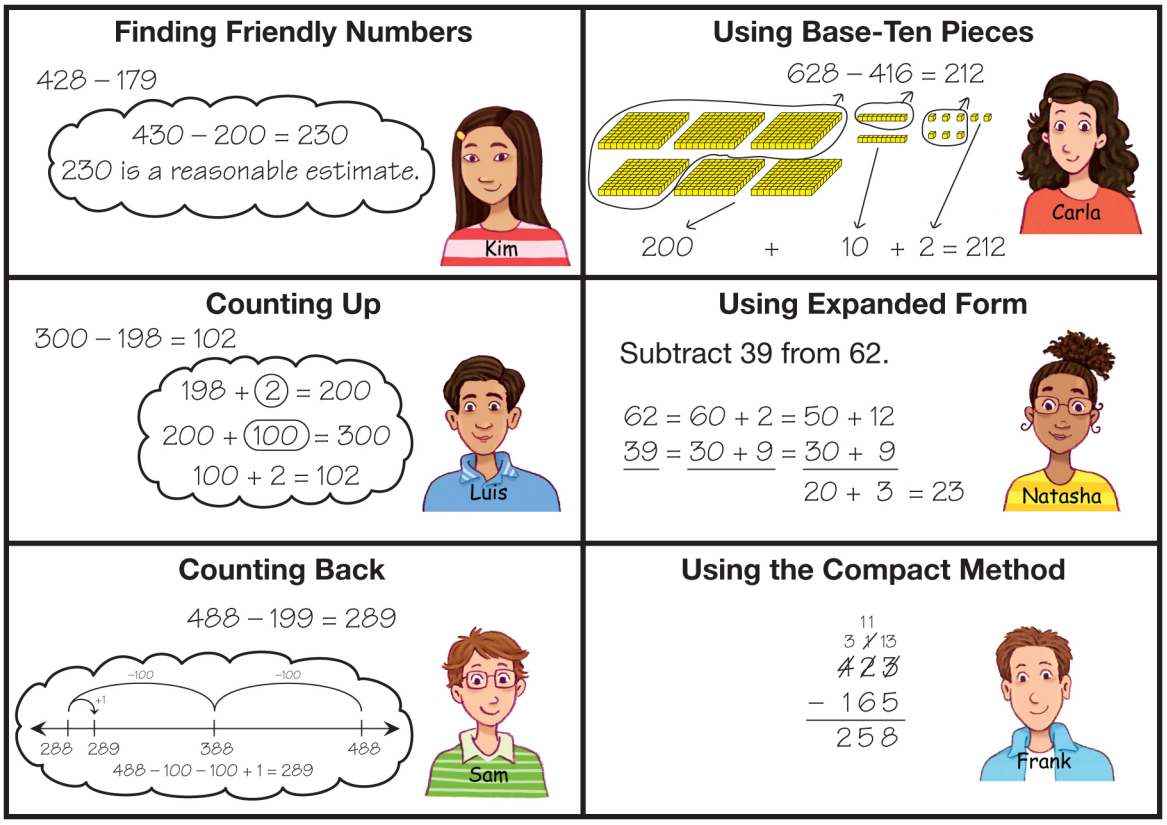


Figure 1: *Subtraction Strategies Menu*

Copyright © Kendall Hunt Publishing Company

You can help reinforce the development of these strategies at home with the following activities:

- **Play Largest to Smallest Game.** In this game, players take turns making multidigit numbers to find a difference. After each round players find the sum of each of these differences. The first person to reach the number goal wins. Directions for this game are in the *Student Activity Book.*
- **Subtraction Strategies Menu.** Encourage your child to use an appropriate method that makes sense to him or her and matches the problem to be solved.
- **Play the Digits Game.** A player chooses a playing board that is a template for an addition or subtraction problem. Cards are drawn one at a time from a deck of 0-9 Digit Cards. After each draw, players write a digit in a box on the playing board trying to find the largest sum correctly. Children were introduced to this game in Unit 6 Lesson 5 using addition.

Time. The analog clock is a complex instrument to learn to read. In this unit, students focus on reading the minute scale.

- **Focus on the Minute Hand.** Practice telling time with your child to the nearest minute at special times of the day such as dinner time and bed time. Ask your child to focus on the minute hand first. Ask if it shows a time closer to the end of the hour or the start of the hour. Then ask your child to use the minute scale to describe the minutes past the hour.
- **Elapsed time.** Ask your child questions about time during your daily routine. For example, it is now 1:15. If I do homework for 20 minutes, what time will it be when I finish? Where will the minute hand on the clock be pointing? Where will the hour hand be pointing?

Math Facts and Mental Math

This unit continues the review and assessment of the subtraction facts and the development of the multiplication facts. Help your child using the activities below.

Subtraction Facts. Students review the subtraction facts in Groups 1–4 to maintain and increase proficiency and to learn to apply subtraction strategies to larger numbers. See Figure 2.

Groups	Subtraction Facts	Strategies Used	
1 2	$12-9, 12-10, 13-9, 13-10, 13-4,$ $15-9, 15-10, 15-6, 19-10,$ $14-10, 14-9, 14-5, 17-10, 17-9,$ $11-9, 16-9, 16-7, 16-10$	Using Tens Thinking Addition	Assessed in Unit 7
3 4	$10-4, 9-4, 11-4, 10-8, 11-8,$ $9-5, 10-6, 11-6, 11-5,$ $10-7, 9-7, 11-7, 10-2, 9-2, 9-3,$ $10-3, 11-3, 9-6$	Making Tens Thinking Addition	
5 6	$7-3, 7-5, 7-2, 11-2, 8-6, 5-3,$ $8-2, 4-2, 5-2,$ $6-4, 6-2, 13-5, 8-5, 8-3, 13-8,$ $12-8, 12-4, 12-3$	Counting up Counting Back Thinking Addition	Assessed in Unit 8
7 8	$14-7, 14-6, 14-8, 12-6, 12-7,$ $12-5, 10-5, 13-7, 13-6,$ $15-7, 16-8, 17-8, 18-9, 18-10,$ $8-4, 7-4, 6-3, 15-8$	Using Doubles Thinking Addition	

Figure 2: *Subtraction Facts Groups as reviewed in Grade 3*

Copyright © Kendall Hunt Publishing Company

You can help your child review these facts using the flash cards the teacher sends 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:

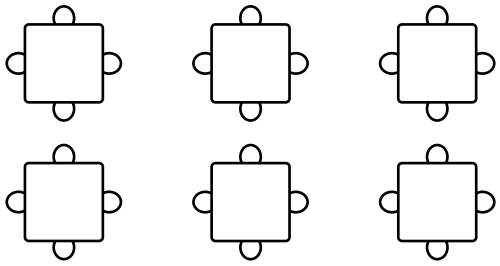
Subtracting 10s and 100s: 120 – 90 = 30, 1000 – 700 = 300

Two-digit minus one-digit problems: 32 – 9 (practices 12 – 9), 44 – 9 (practices 14 – 9)

Multiplication Facts. Students work on developing number sense for the multiplication facts for the last six facts (4×6, 4×7, 4×8, 6×7, 6×8, 7×8) in this unit. This will help them remember the facts as they develop proficiency. Ask your child to write a story, draw a picture, and complete number sentences for one or two facts each night. Follow these examples:

Example: $4 \times 6 = \square$

There are 6 seats at each of the 4 tables.
There are 24 chairs.

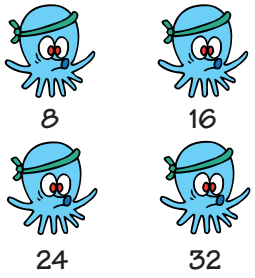


4 tables × 6 chairs = 24 chairs

Example: $4 \times \square = 32$

$4 \times \square = 32$

An octopus has 8 legs.
This group of 4 has 32 legs.



Thank you for taking time to talk with your child about what he or she is doing in math.

Sincerely,

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Unit 7: Home Practice

Part 1 Making Ten, Subtracting Nines

1. A. 12 + 8 + 5 = _____

B. 17 + 3 + 5 = _____

C. 5 + 16 + 4 = _____

D. 11 + 5 + 9 = _____

2. A. 100 − 90 = _____

B. 110 − 90 = _____

C. 150 − 90 = _____

D. 210 − 90 = _____

3. Sara made tens to solve the problems in Question 1. Explain how you can "make a ten" to solve Question 1D.

Part 2 Addition and Subtraction Practice

1. A. 160 − 90 = _____

B. 160 − 100 = _____

C. 160 − 70 = _____

D. 140 − 90 = _____

2. A. 160 + 40 = _____

B. 160 + 60 = _____

C. 160 + 80 = _____

D. 150 + 70 = _____

3. Richard and Darius bought ice cream. Together they had $1.50. Darius bought a chocolate cone for 60¢ and Richard bought a double scoop strawberry cone for 80¢.

A. How much money will they have left after buying the ice cream cones? Show how you solved the problem.

B. If they share the change evenly, how much money should each person get? Show how you know.

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Part 3 Using Strategies to Subtract Larger Numbers

Choose a method to solve the following problems. Estimate to make sure your answers are reasonable. Use the *Subtraction Strategies Menu* in the Reference section of the *Student Guide*.

1.
$$\begin{array}{r} 3092 \\ -\ 1631 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 2002 \\ -\ 999 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 892 \\ -\ 647 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 5327 \\ -\ 1693 \\ \hline \end{array}$$

5. Look at your answer for Question 3. Is your answer reasonable? Show or tell how you know.

6. Use addition to check your answer for Question 4.

7. Explain a method for solving Question 2 in your head or with a few quick notes.

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Part 4 Problem Solving

1. Nisha has $5.00 in her piggy bank. Her bank has only coins inside but no pennies. What coins could be in her bank that total $5.00? Show at least two different coin combinations below.

2. Frank wants to visit his grandmother after his Little League game on Saturday. If the game ends at 11:35 and it takes twenty-five minutes to travel to his grandmother's house, what time will Frank arrive?

_____

3. Mara needs fifty cents for the token machine at the carnival. The machine will only take quarters. She plans to use the coins from her piggy bank. Mara has the following coins in her piggy bank.

Mara's Bank

Quarters	**4**
Nickels	**7**
Dimes	**12**
Pennies	**2**

A. How much money does Mara have in her piggy bank?

B. If Mara traded all of her coins for quarters how many quarters would she have? Show or tell how you found your answer.

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Part 5 Using Strategies to Add Larger Numbers

Choose a method to solve the following problems. Estimate to make sure your answers are reasonable. Use the *Addition Strategies Menu* in the Reference section of the *Student Guide*.

1.
$$\begin{array}{r} 3091 \\ +\ 707 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 4357 \\ +\ 2828 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 359 \\ +\ 707 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 3001 \\ +\ 1998 \\ \hline \end{array}$$

5. A. Look at your answer for Question 2. Is your answer reasonable? Show or tell how you know.

B. Explain a method for solving Question 4 in your head or with a few quick notes.

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Part 6 Problem Solving with Addition and Subtraction

Use strategies to solve these problems. Use the *Addition Strategies Menu* and the *Subtraction Strategies Menu* from the *Student Guide* Reference section.

1. Josh and Sam's family planned a summer trip to Flagstaff, Arizona. They used their computer to help map their route and found that the distance between their house and their hotel in Flagstaff was 1637 miles. On the first day of their trip they drove 505 miles.

A. How many more miles do they have drive before getting to Flagstaff?

B. Show or tell how you found your answer.

2. On the second day of they trip, Josh and Sam's family traveled another 583 miles.

A. How many miles have they traveled so far?

B. Show or tell how you can use estimation to prove that your answer is reasonable.

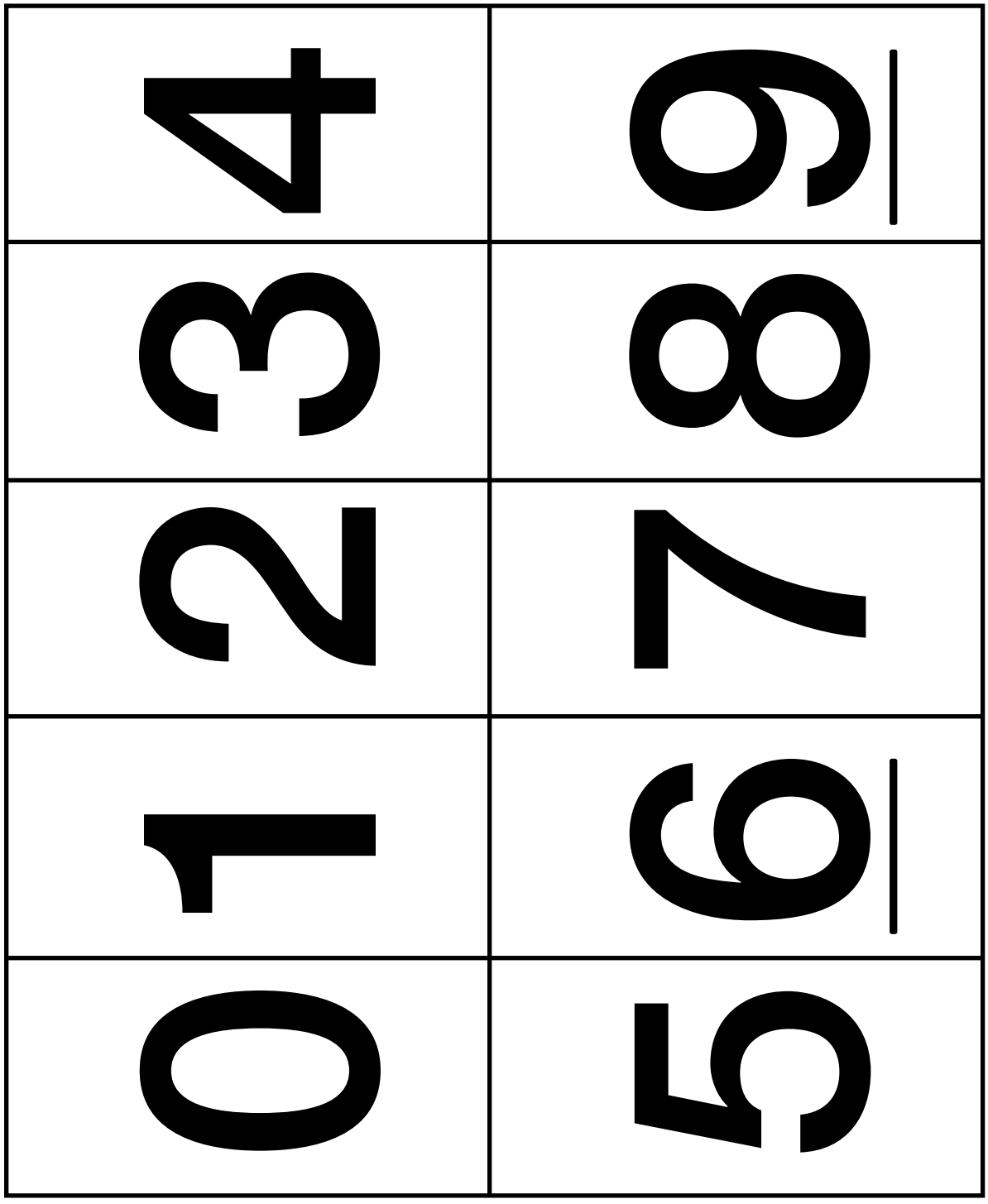
3. A. Use your answer to Question 2A to find how much further Josh and Sam's family has to travel before they will arrive in Flagstaff.

B. Show or tell how you found your answer.

Copyright © Kendall Hunt Publishing Company

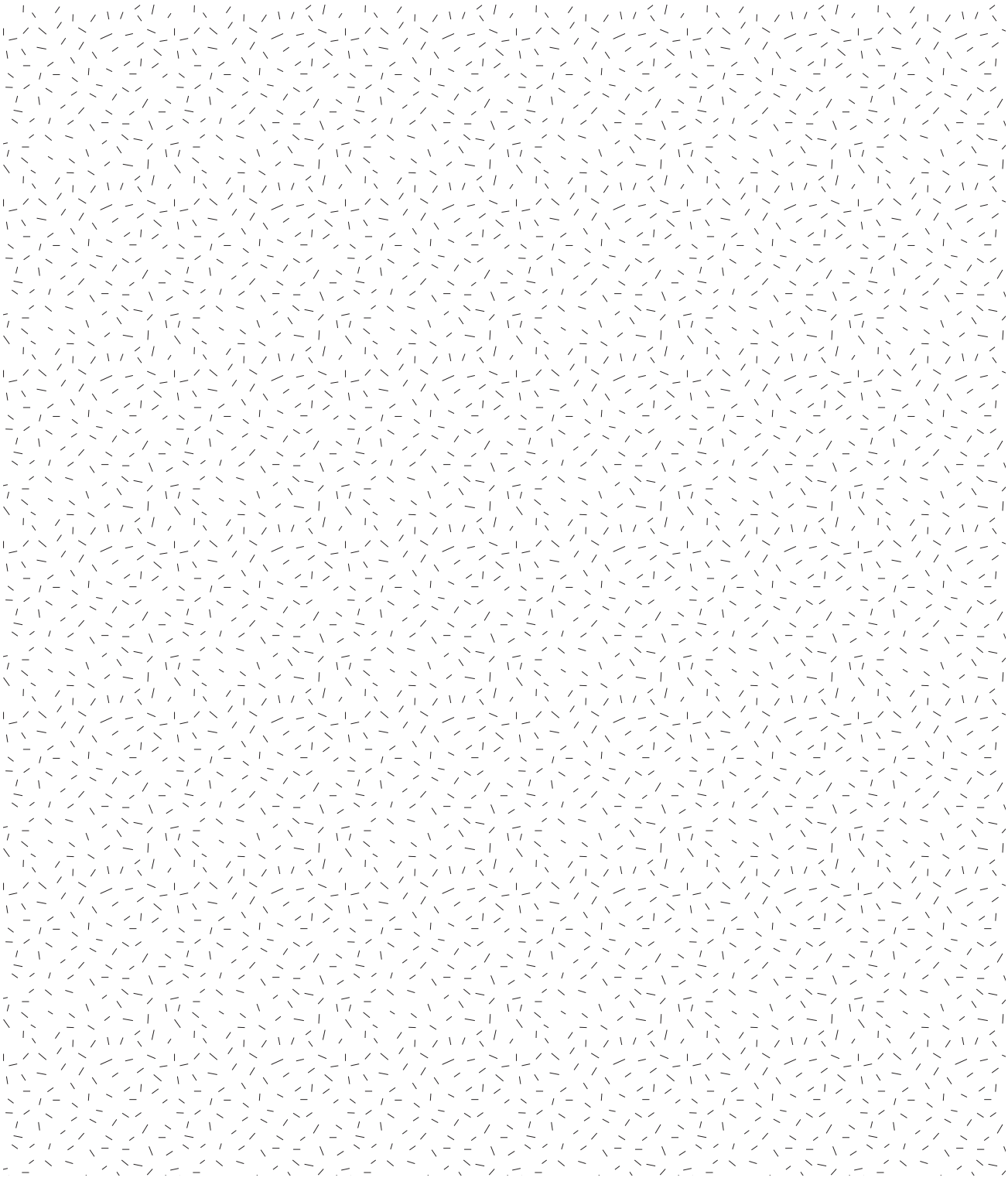
Name _____ Date _____

Digit Cards 0–9



Copyright © Kendall Hunt Publishing Company

Name _____ Date _____



Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Math Practices Notes

Solving a problem:

1. **Know the problem.** I read the problem carefully. I know the questions to answer and what information is important.	2. **Find a strategy.** I choose good tools and an efficient strategy for solving the problem.
3. **Check for reasonableness.** I look back at my solution to see if my answer makes sense. If it does not, I try again.	4. **Check my calculations.** If I make mistakes, I correct them.

Showing or telling how I solve a problem:

5. **Show my work.** I show or tell how I arrived at my answer so someone else can understand my thinking.	6. **Use labels.** I use labels to show what numbers mean.

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Subtraction Facts I Know

Circle the subtraction facts you know and can answer quickly. Underline the facts you can figure out using a strategy. Do nothing to the facts you still need to learn.

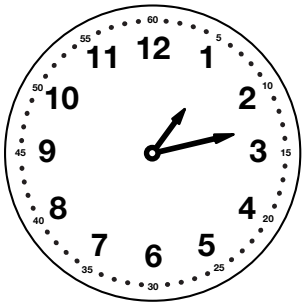
	A	B	C	D	E	F	G	H
2	4 − 2 = 2	5 − 2 = 3	6 − 2 = 4	7 − 2 = 5	8 − 2 = 6	9 − 2 = 7	10 − 2 = 8	11 − 2 = 9
3	5 − 3 = 2	6 − 3 = 3	7 − 3 = 4	8 − 3 = 5	9 − 3 = 6	10 − 3 = 7	11 − 3 = 8	12 − 3 = 9
4	6 − 4 = 2	7 − 4 = 3	8 − 4 = 4	9 − 4 = 5	10 − 4 = 6	11 − 4 = 7	12 − 4 = 8	13 − 4 = 9
5	7 − 5 = 2	8 − 5 = 3	9 − 5 = 4	10 − 5 = 5	11 − 5 = 6	12 − 5 = 7	13 − 5 = 8	14 − 5 = 9
6	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	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	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	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	12 − 10 = 2	13 − 10 = 3	14 − 10 = 4	15 − 10 = 5	16 − 10 = 6	17 − 10 = 7	18 − 10 = 8	19 − 10 = 9

Copyright © Kendall Hunt Publishing Company

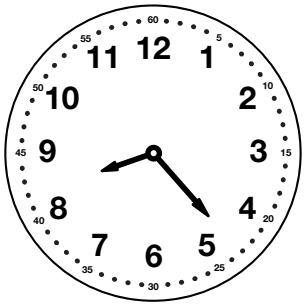
Name _____ Date _____

More Time

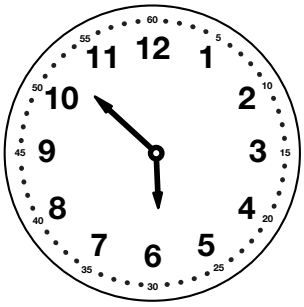
Write the time shown on each clock. Give each time to the nearest minute. You can use your individual clocks.



1. _____



2. _____



3. _____

Answer the following questions.. Then explain how you found your answers.

4. Kathy went to see a movie. It started at 7:15. It ended at 9:30.

A. How long was the movie?

B. Show or tell how you found your answer.

5. Mark started playing tennis at 3:35. He played for 55 minutes.

A. What time did Mark stop playing tennis?

B. Show or tell how you found your answer.

6. Sara was at the ice rink for 125 minutes.

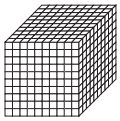
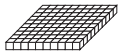
A. How long is 125 minutes in hours and minutes?

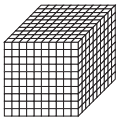
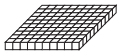
B. If Sara left the ice rink at 5:45, what time did she arrive?

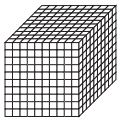
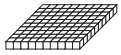
Copyright © Kendall Hunt Publishing Company

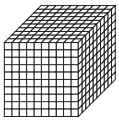
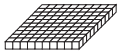
Name _____ Date _____

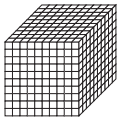
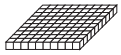
Base-Ten Recording Sheet

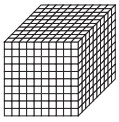
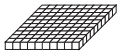
 1000s	 100s	10s	1s

 1000s	 100s	10s	1s

 1000s	 100s	10s	1s

 1000s	 100s	10s	1s

 1000s	 100s	10s	1s

 1000s	 100s	10s	1s

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Subtraction Checkup

1. Johnny solved a subtraction problem. Then he added his answer and the number he subtracted. He knew he made a mistake.

$$\begin{array}{rl} 673 & \\ -\ 482 & \\ \hline 211 & \text{Answer} \\ \hline 693 & \text{Check} \end{array}$$

How did he know that?

2. Yolanda used base-ten pieces to solve this problem.

A. Which base-ten pieces did she trade?

$$\begin{array}{r} {}^{5}\not{6}\,{}^{13}\not{3}5 \\ -\ 170 \\ \hline 465 \end{array}$$

B. Why did she write a 13 above the 3?

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

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

A.

$$\begin{array}{r} 84 \\ -\ 47 \\ \hline 47 \end{array}$$

B.

$$\begin{array}{r} 302 \\ -\ 159 \\ \hline 253 \end{array}$$

C.

$$\begin{array}{r} 8204 \\ -\ 1549 \\ \hline 6655 \end{array}$$

4. Solve the following problems. Use addition to check your work.

A.

$$\begin{array}{r} 857 \\ -\ 432 \\ \hline \end{array}$$

B.

$$\begin{array}{r} 201 \\ -\ 148 \\ \hline \end{array}$$

C.

$$\begin{array}{r} 2304 \\ -\ 1548 \\ \hline \end{array}$$

5. Explain a way to solve Question 4B in your head.

Subtraction Checkup Feedback Box	Expectation	Check In	Comments
Apply place value concepts to make connections among representations of numbers. [Q# 1–4]	**E1**		
Subtract multidigit numbers using mental math strategies. [Q# 5]	**E3**		
Use the compact paper-and-pencil method to subtract. [Q# 3–4]	**E4**		

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Subtraction Quiz

Andy and Kris each solved the problem 340 – 289. Look at the two different methods.

Andy's Strategy

$$\begin{array}{r} {\scriptstyle 13} \\ {\scriptstyle 2\,\not{3}\,{}^{1}\not{0}} \\ \not{3}\not{4}\not{0} \\ -\,2\,8\,9 \\ \hline 5\,1 \end{array}$$

Kris's Strategy

$289 + (1) = 290$

$290 + (10) = 300$

$300 + (40) = 340$

$40 + 10 + 1 = 51$

1. In Andy's solution, why did he write a 10 above the zero?

2. Which strategy do you like better for this problem? Why?

3. Solve 140 – 89 using Kris's Strategy and Andy's Strategy.

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Solve and check your answer. Use the *Subtraction Strategies Menu.*

4. 629
−267

5. 5001
−3287

6. Show how you checked your answer to Question 4.

7. Show how to solve 43 – 29 two different ways.

Copyright © Kendall Hunt Publishing Company

Subtraction Quiz Feedback Box	Expectation	Check In	Comments
Apply place value concepts to make connections among representations of numbers. [Q# 1]	E1		
Subtract multidigit numbers using mental math strategies. [Q# 3–7]	E3		
Subtract multidigit numbers using paper-and-pencil methods. [Q# 3–7]	E4		

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Addition and Subtraction: Practice and Estimation Check-In: Questions 7–8 Feedback Box

Student to Student	Yes . . .	Yes, but . . .	No, but . . .	No. . .
MPE2. Find a strategy. I choose good tools and an efficient strategy for solving the problem.				
MPE3. Check for reasonableness. I look back at my solution to see if my answer makes sense. If it does not, I try again.				
MPE5. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking.				

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Addition and Subtraction: Practice and Estimation Check-In: Questions 7–8 Feedback Box

Teacher to Student	Expect-ation	Check In	Comments
Estimate differences using mental math strategies (e.g., rounding using benchmarks, using convenient numbers, composing and decomposing numbers, counting up and counting back).	E5		

Teacher to Student	Yes . . .	Yes, but . . .	No, but . . .	No. . .
MPE2. Find a strategy. I choose good tools and an efficient strategy for solving the problem.				
MPE3. Check for reason-ableness. I look back at my solution to see if my answer makes sense. If it does not, I try again.				
MPE5. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking.				

Name _____ Date _____

Manuel, Philip, and Marina's Work

Practice Sheet

1. Lemonade $7.50
Cups $1.38
napkins 49¢
popcorn $1.09
all together $10.46

second most money spent

2. ice cream bars $7.50
cookies $1.98
napkins 49¢
all together $9.97

most money spent

3. ice cream bars $7.50
popcorn $1.09
napkins .49
all together $9.98¢

included mini Piñata all ready added to amount

we chose this one

less money spent

4. lemonade $7.50
cups $1.38
cookies 1.98
$10.86

does! not! work!

too high

We spend the money on, ice cream bars, popcorn, napkins, that makes $9.08. We have .92¢ left, so we made our own. It is a mini piñata, it costs .90¢ (150 pices of candy are incuded, that makes it so each kid would get 6 candies.) left over, .2¢

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Grace and Emma's Work

First, we did 20 ice cream bars we did 20X30 because it costs 30¢ for one bar. Then we got $6.00 but we still needed 5 more bars to go. Then we counted by 30's 5 times and got 150. Then we did 150 +600 and that was $7.50.

Next, We bought one bag of popcorn that feeds 30 people so we only need one bag and that costs $1.09 and 109 + 750 is 859 so $8.59 is our new toatal.

Next, we bought one pack of napkins and 8.59 + .49 is 9.08 and we used as much as we could.

We did it this way because it worked and we sortof did it alongthe way.

30	$6.00	$7.50	$8.59
x 20	+1.50	+1.09	+.49
$6.00	$7.50	$8.59	$9.08

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Pete and Matt's Work

$$
\begin{array}{r}
{\scriptstyle 1} \\
2.50 \\
2.50 \\
+\ 2.50 \\
\hline
{\scriptstyle 1}7.50 \\
+\ \ .69 \\
\hline
8.{\scriptstyle 1}19 \\
\ \ .69 \\
\hline
8.{\scriptstyle 1}88 \\
\ \ 1.09 \\
\hline
9.97
\end{array}
$$

Copyright © Kendall Hunt Publishing Company

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Class Party Feedback Box

Student to Student	Yes . . .	Yes, but . . .	No, but . . .	No. . .
MPE1. Know the problem. I read the problem carefully. I know the questions to answer and what information is important.				
MPE2. Find a strategy. I choose good tools and an efficient strategy for solving the problem.				
MPE3. Check for reasonableness. I look back at my solution to see if my answer makes sense. If it does not, I try again.				
MPE4. Check my calculations. If I make mistakes, I correct them.				
MPE5. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking.				
MPE6. Use labels. I use labels to show what numbers mean.				

Copyright © Kendall Hunt Publishing Company

Name _____ Date _____

Class Party Feedback Box

Teacher to Student	Yes . . .	Yes, but . . .	No, but . . .	No. . .
MPE1. Know the problem. I read the problem carefully. I know the questions to answer and what information is important.				
MPE2. Find a strategy. I choose good tools and an efficient strategy for solving the problem.				
MPE3. Check for reasonableness. I look back at my solution to see if my answer makes sense. If it does not, I try again.				
MPE4. Check my calculations. If I make mistakes, I correct them.				
MPE5. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking.				
MPE6. Use labels. I use labels to show what numbers mean.				