

LETTER HOME


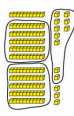

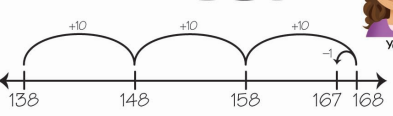

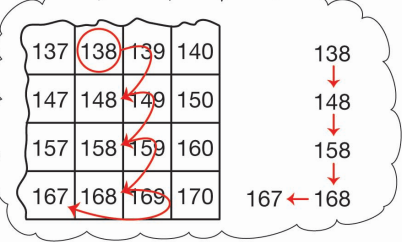



Adding Larger Numbers

Dear Family Member:

Students are developing a deeper understanding of place value and applying those concepts to their experiences to add larger numbers. Students develop several different strategies: direct modeling, reasoning (mental math) strategies, and paper-and-pencil procedures. Many of these strategies are supported with tools: base-ten pieces or shorthand, drawings, number lines, and number sentences. A person may choose one or more of these strategies for a particular situation. For example, to find the sums of $25 + 27$ and $68 + 2$, a mental math strategy is much more efficient than using a paper-and-pencil method.

Students invent their own strategies from class discussions. The figure below shows both mental math and paper-and-pencil methods used in this unit.

Addition Strategies Menu

Paper-and-Pencil	Mental Math
<p>Finding Friendly Numbers</p> <p>$138 + 29$</p> <p>$140 + 30 = 170$ 170 is a reasonable estimate.</p>  <p>Levi</p>	<p>Using Base-Ten Pieces</p> <p>68 $+ 55$ <hr/>123</p>   <p>Peter</p> <p>Trade 11 skinnies and 13 bits for 1 flat, 2 skinnies, and 3 bits</p>
<p>Counting On</p> <p>$138 + 29$</p> <p>$138 + 30 - 1 = 167$</p>   <p>Yolanda</p> 	<p>Using Expanded Form</p> <p>$68 = 60 + 8$ $+ 55 = 50 + 5$ <hr/>$110 + 13 = 123$</p>  <p>Tara</p>
	<p>Using All-Partials</p> <p>68 $+ 55$ <hr/>110 $\underline{13}$ 123</p>  <p>Josh</p>
	<p>Using the Compact Method</p> <p>$\overset{1}{6}8$ $+ 55$ <hr/>123</p>  <p>Julia</p>

As we explore addition strategies in class, you can provide additional support at home.

- Home Shopping Spree.** Choose some inexpensive items, such as canned goods, fruit, or paper products, in your home and price them for amounts under a dollar. Your child can choose two or more items to “buy” and figure out their total cost. After each “purchase,” encourage your child to tell the strategies he or she used to solve the problem.

- **Play Add to 100.** This game helps develop students' abilities to estimate sums. This game is for two players and they will need 4 sets of digit cards 0–9. If you use playing cards, use only the 1–9 cards. After shuffling the cards, give each player four cards. Each player uses the four cards to make an addition problem. The player whose answer is closest to 100 takes all the cards. Keep playing until all the cards are gone. The player with the most cards wins.

$$\begin{array}{r} \boxed{5} \ \boxed{2} \\ + \boxed{4} \ \boxed{7} \\ \hline 9 \ \ 9 \end{array} \qquad \begin{array}{r} \boxed{1} \ \boxed{0} \ \boxed{2} \\ + \qquad \qquad \boxed{3} \\ \hline 1 \ 0 \ 5 \end{array}$$

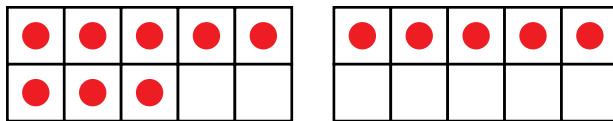
Math Facts and Mental Math

Addition Facts. This unit continues the development of the addition facts and related subtraction facts in Group E (5 + 7, 8 + 4, 8 + 5, 9 + 3, 9 + 4, 9 + 5, 10 + 1, 10 + 2, 10 + 3).

You can help your child review these facts using the flash cards that were 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 piles: 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. Making ten and using ten are good strategies for the facts in Group E.

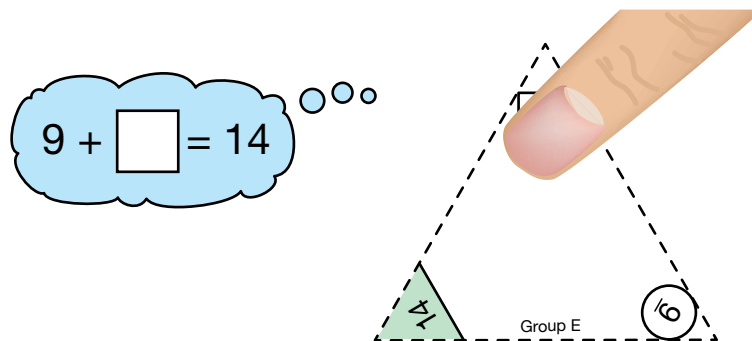
$$8 + 5 = (5 + 5) + 3 \text{ or } 13.$$



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

For Facts I Know Quickly, help your child use mental math strategies to add 10s related to the addition facts: 15 + 7 (to practice 5 + 7) or 80 + 50 (to practice 8 + 5).

Related Subtraction Facts. You can help your child develop strategies for the related subtraction facts also using the flash cards. Cover one of the addends (smaller numbers) on the flash cards and ask your child to figure out what number you are covering.



Thank you for supporting your child's math activities at home.

Sincerely,

Unit 7: Home Practice

Part 1 Addition Flash Cards: Group E

Take home your *Triangle Flash Cards: Group E*. Ask a family member to choose one flash card at a time for you to solve. Sort the flash cards into three piles: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn. Update your *Addition Facts I Know* chart. Clip the cards in the Facts I Know Quickly pile together and place them back into the envelope. Practice the facts in the last two piles again.

Part 2 Addition Facts Practice

A. $10 + 3 = \square$

B. $9 + 3 = \square$

C. $10 + 4 = \square$

D. $9 + 4 = \square$

E. $8 + 4 = \square$

F. $8 + 2 + \square = 12$

G. $10 + 5 = \square$

H. $9 + 5 = \square$

I. $8 + 5 = \square$

J. $8 + 2 + \square = 13$

K. $7 + 5 = \square$

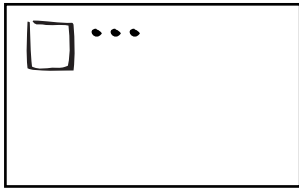
L. $10 + 1 = \square$

M. Show or tell how you solved Question K.

Part 3 Greater Than or Less Than

Draw or write the numbers below. Use base-ten shorthand. Compare each pair of numbers using $<$, $>$, or $=$.

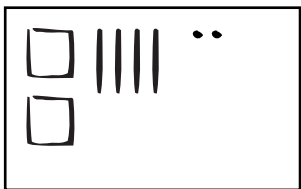
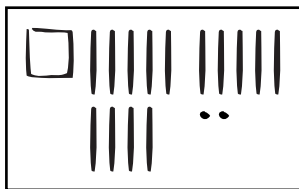
Example

			123	<input type="radio"/> $>$	103	
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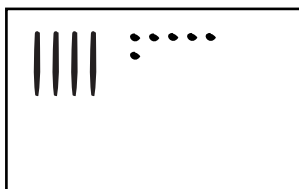
1.

			43	<input type="radio"/>	423	
--	--	--	----	-----------------------	-----	--

2.

			—	<input type="radio"/>	—	
--	------------------------------------------------------------------------------------	--	---	-----------------------	---	--------------------------------------------------------------------------------------

3.

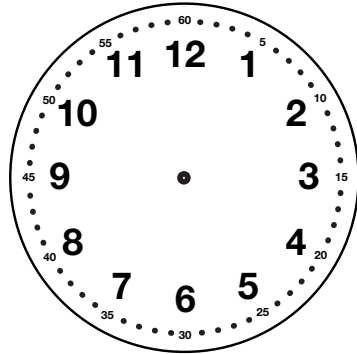
			56	<input type="radio"/>	—	
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4.

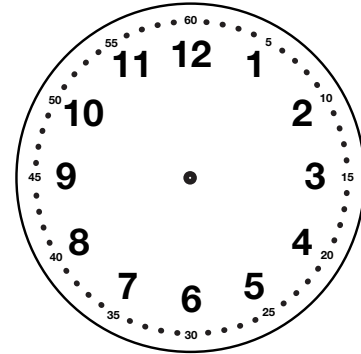
			103	<input type="radio"/>	96	
--	--	--	-----	-----------------------	----	--

Part 4 Time

1. Jackie lives 30 minutes away from the ice-skating rink. She is meeting her friends Sara and Rosa there at 4:30. At what time does she have to leave home in order to be at the rink on time? Draw both times on the clocks below.



Time Jackie left home

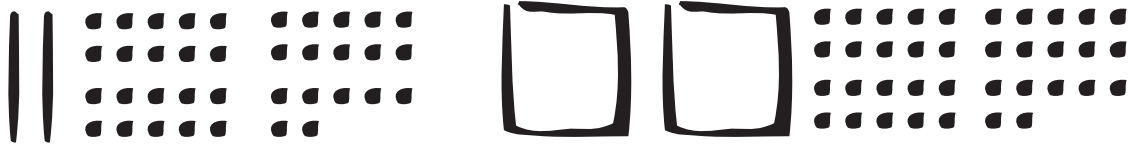
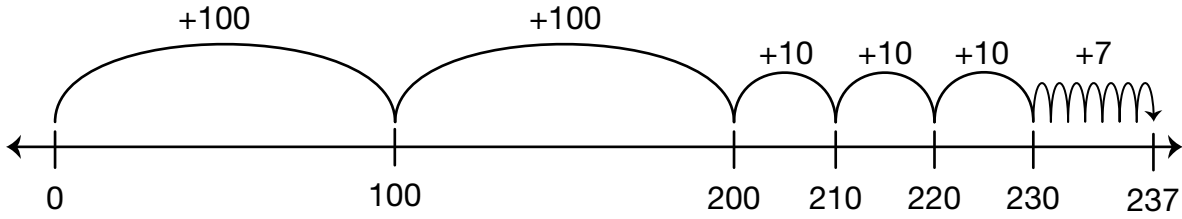


Time she arrived at skating rink

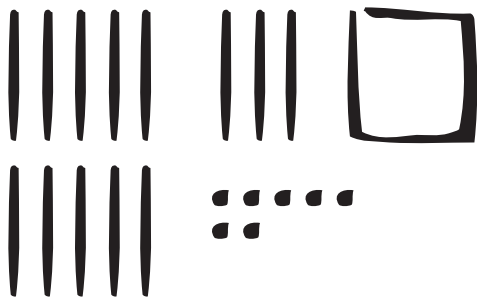
2. Sara arrived at the rink at 4 o'clock but realized she forgot her skates. She lives near Jackie but it does not take her quite as long to get to the skating rink. Do you think she has time to go home and still make it back to the rink before 4:30? Explain.

Part 5 Many Ways to Show a Number

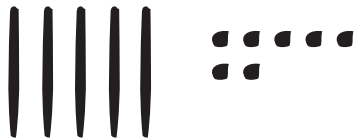
1. Circle the ways to show 237.



$100 + 100 + 30 + 7$



$100 + 130 + 7$



$200 + 30 + 7$

$200 + 37$

$200 + 3 + 17$

2. Show 237 another way.

Name _____

Date _____

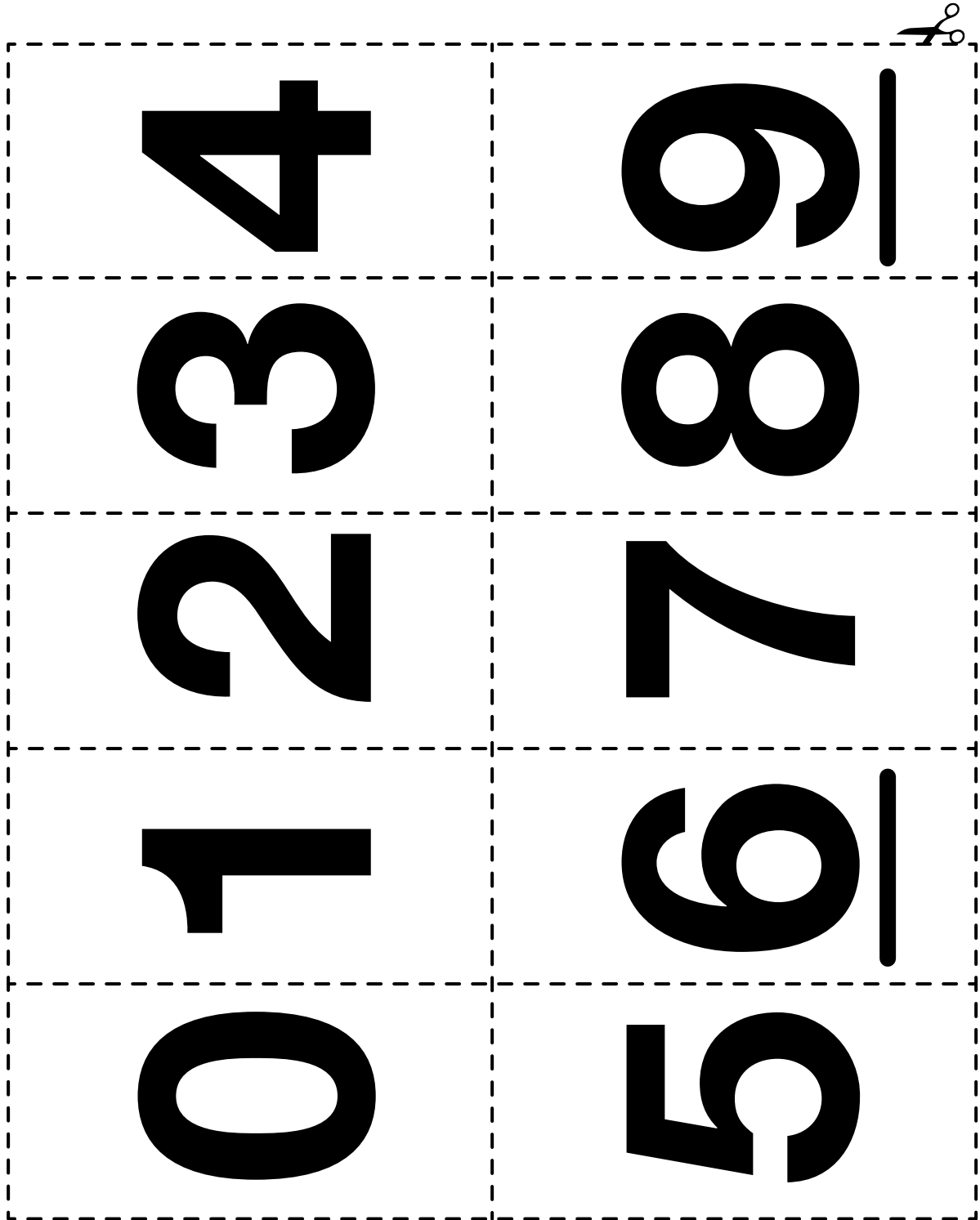
Addition Facts I Know

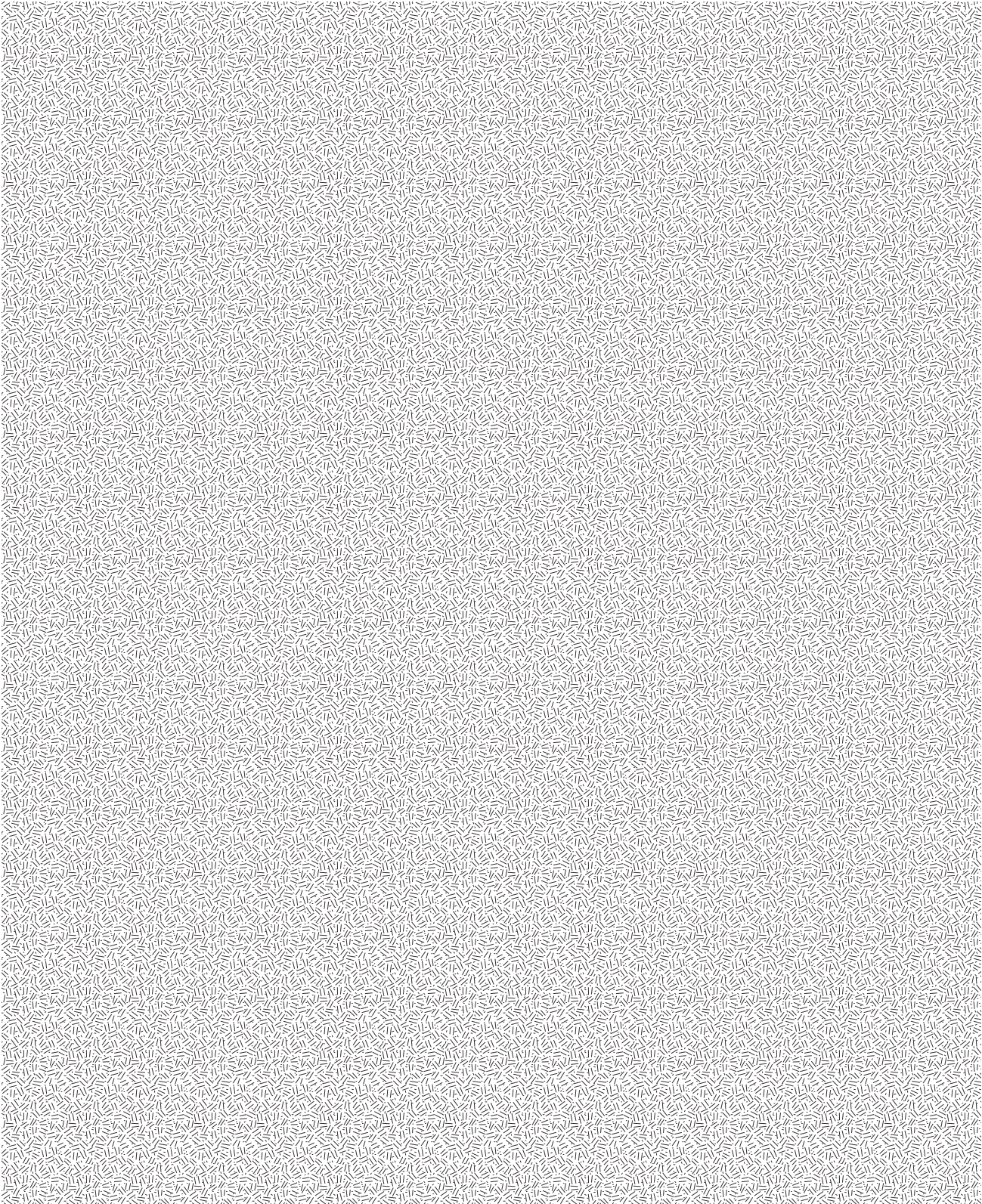
Circle the facts you know quickly.

$1 + 1$	$1 + 2$	$1 + 3$	$1 + 4$	$1 + 5$	$1 + 6$	$1 + 7$	$1 + 8$	$1 + 9$	$1 + 10$
$2 + 2$	$2 + 3$	$2 + 4$	$2 + 5$	$2 + 6$	$2 + 7$	$2 + 8$	$2 + 9$	$2 + 10$	
$3 + 3$	$3 + 4$	$3 + 5$	$3 + 6$	$3 + 7$	$3 + 8$	$3 + 9$	$3 + 10$		
$4 + 4$	$4 + 5$	$4 + 6$	$4 + 7$	$4 + 8$	$4 + 9$	$4 + 10$			
$5 + 5$	$5 + 6$	$5 + 7$	$5 + 8$	$5 + 9$	$5 + 10$				
$6 + 6$	$6 + 7$	$6 + 8$	$6 + 9$	$6 + 10$					
$7 + 7$	$7 + 8$	$7 + 9$	$7 + 10$						
$8 + 8$	$8 + 9$	$8 + 10$							
$9 + 9$	$9 + 10$								
$10 + 10$									

Digit Cards 0-9

Cut out the digit cards below.

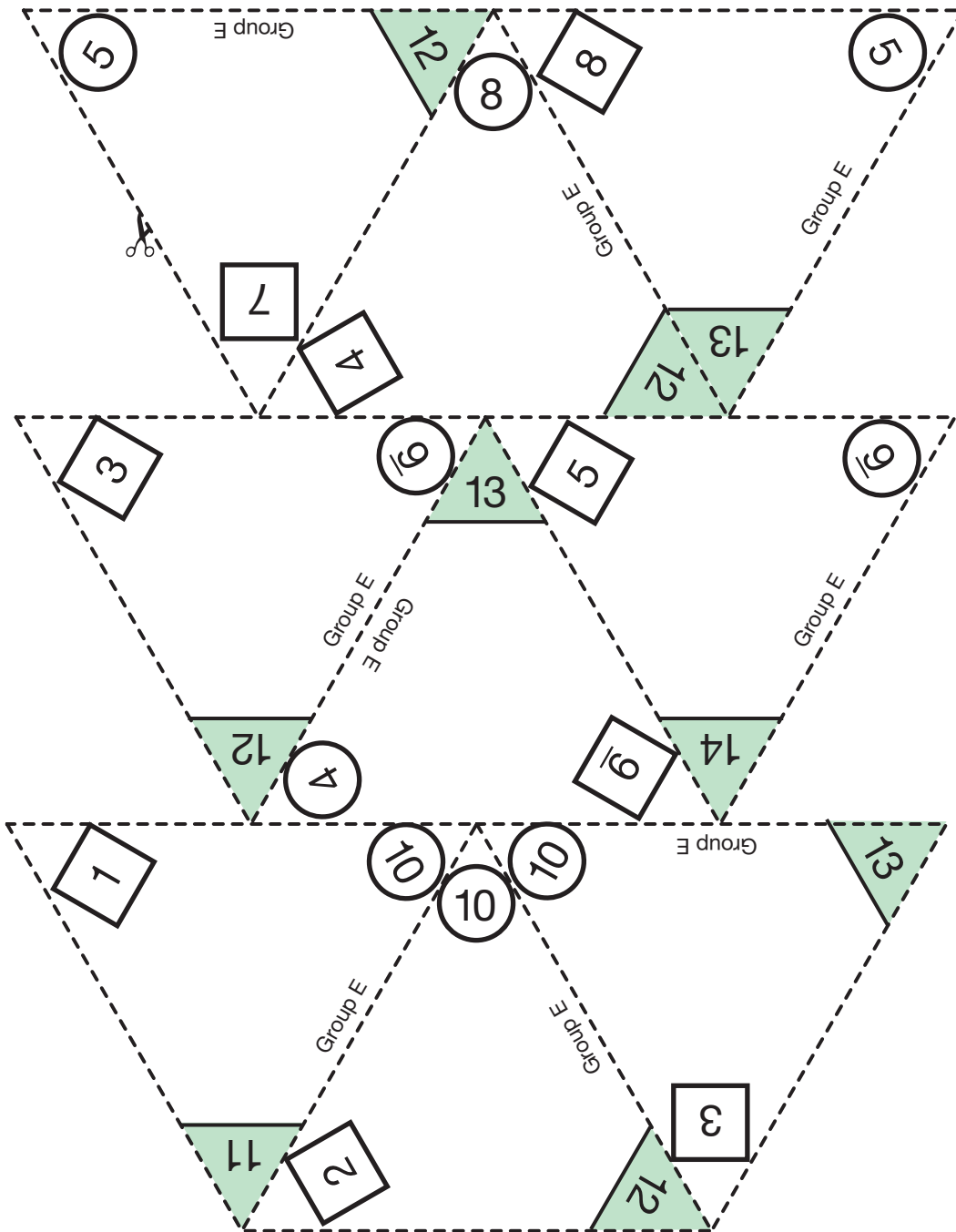




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Triangle Flash Cards: Group E

- 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.



Estimate Sums



Dear Family Member:

Students are using strategies to estimate sums. To estimate $27 + 52$ you could use friendly numbers. Friendly numbers are often tens. For example, the closest ten to 27 is 30 and the closest ten to 52 is 50, so an estimate of 80 is reasonable. You could also add tens. 27 has 2 tens and 52 has 5 tens, so an estimated sum of 7 tens or 70 could also be made. Another strategy is to use coins. 27 is close to a quarter and 52 is close to two more quarters, so an estimate of 75 is reasonable. Have your child talk to you about the estimation strategy he or she used in some of the problems below.

Thank you.

Pick two price tags and cross them out. Estimate their sum. Use the 200 Chart to help you find friendly numbers. Show or tell how you estimated.

13¢	54¢	48¢	27¢
77¢	22¢	61¢	36¢
47¢	39¢	41¢	25¢

1. I picked _____ and _____.

The sum is about _____.

2. I picked _____ and _____.

The sum is about _____.

3. I picked _____ and _____.

The sum is about _____.

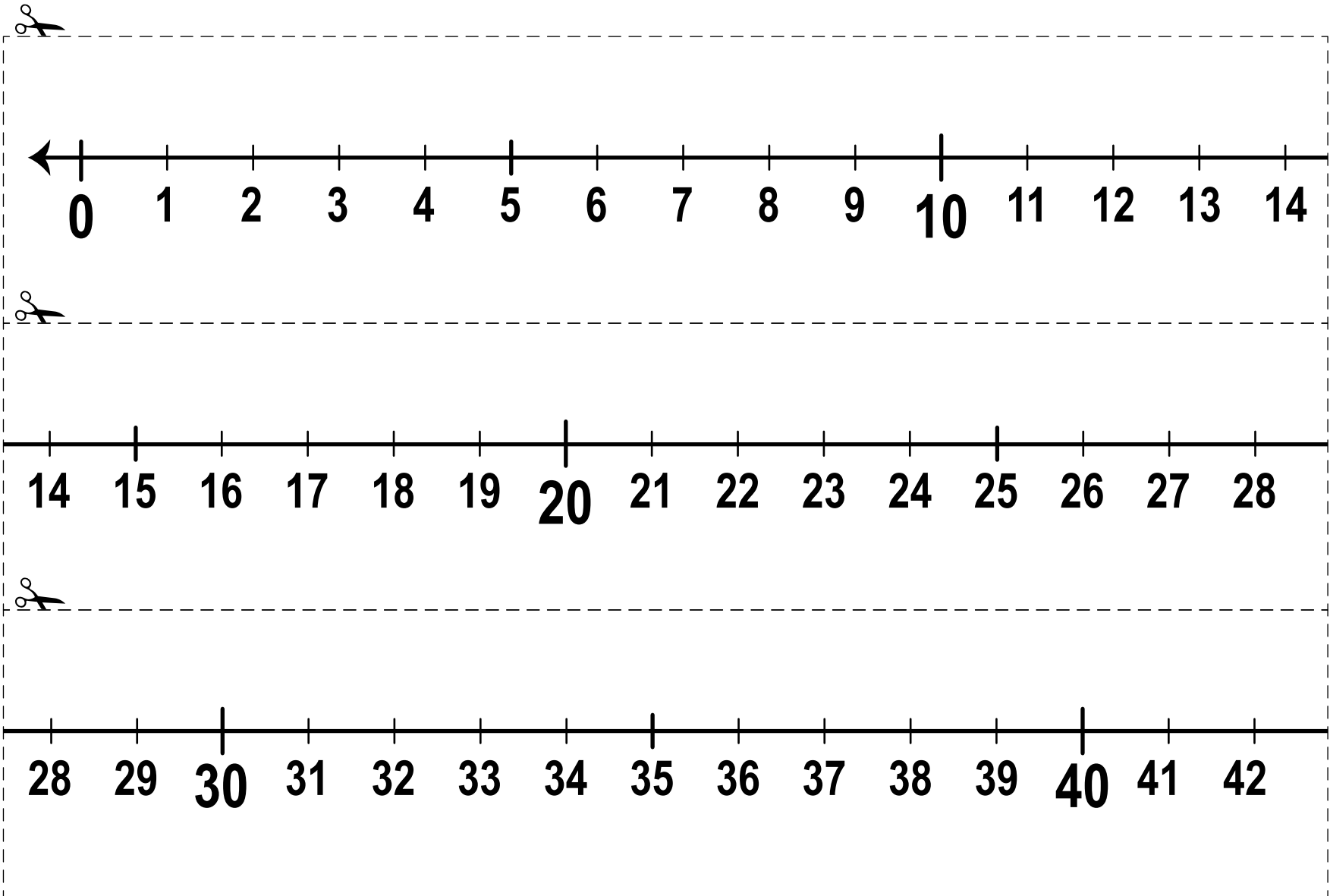
4. I picked _____ and _____.

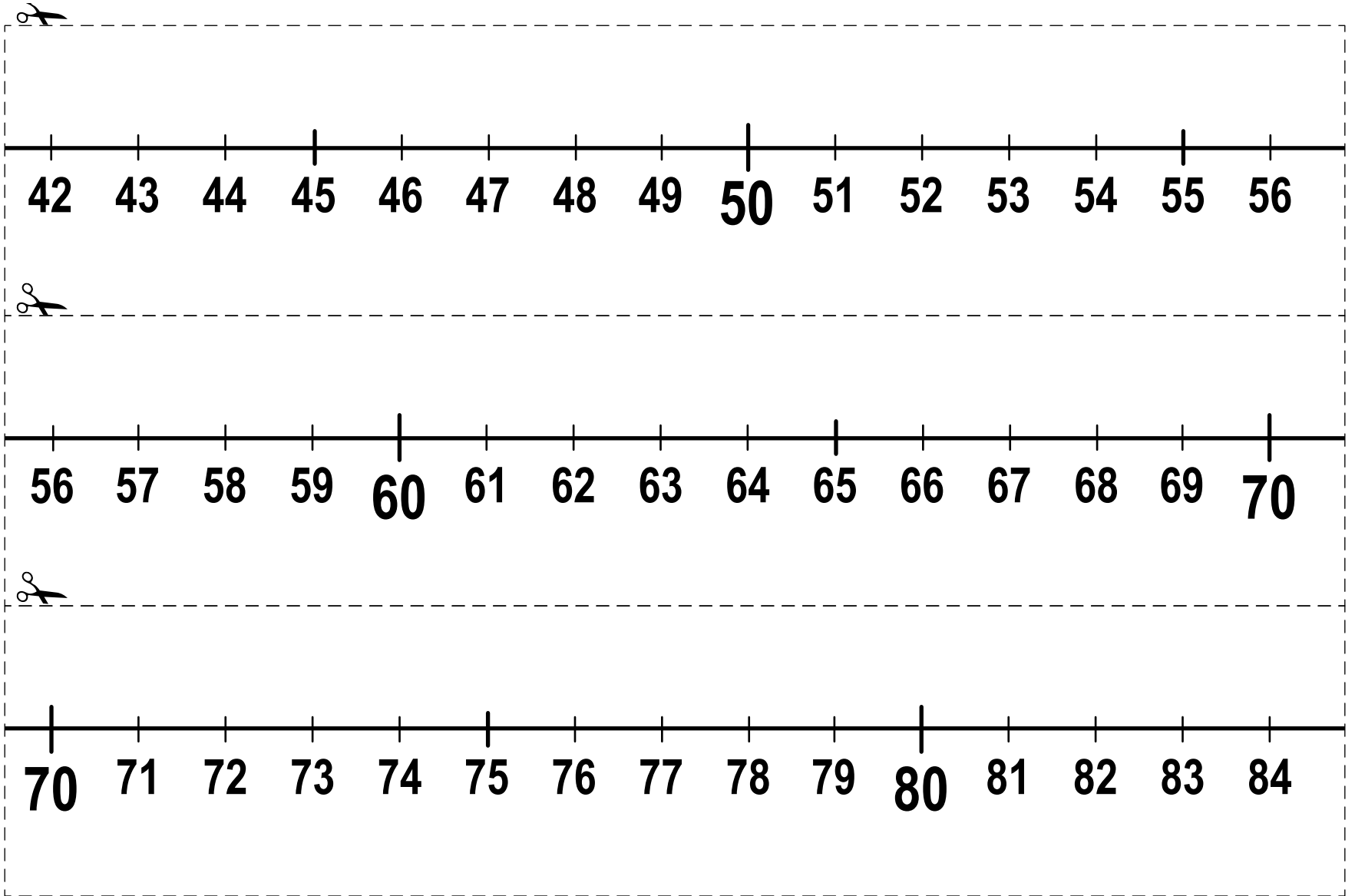
The sum is about _____.

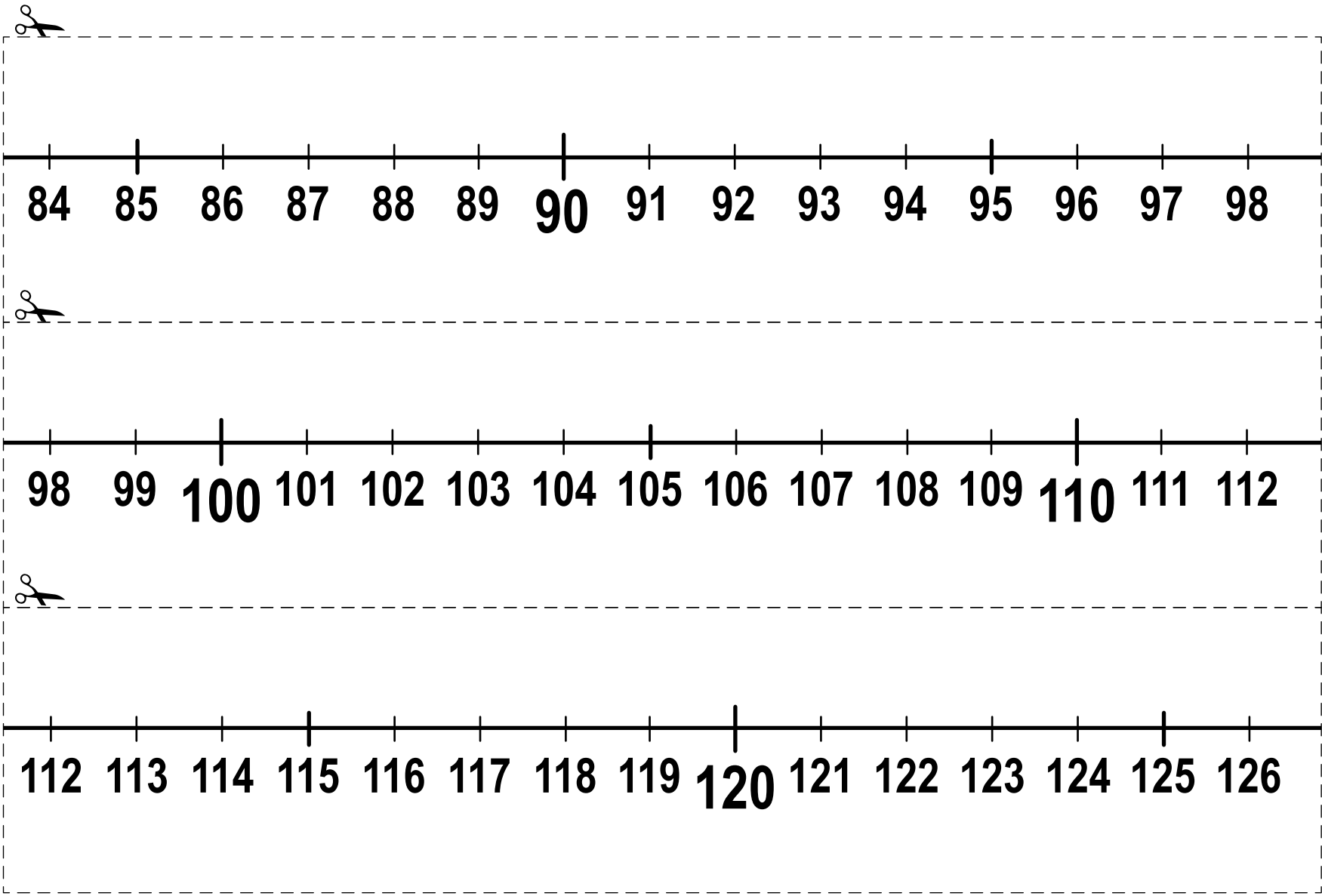
200 Chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

Number Line Display

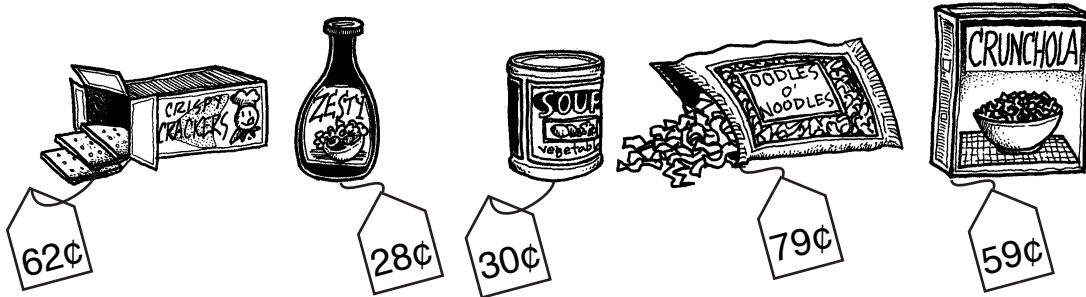






The image contains three identical sets of horizontal lines, each enclosed in a dashed rectangular box. Each set consists of a solid horizontal line at the bottom with 15 vertical tick marks, and a dashed horizontal line at the top. A small scissors icon is positioned at the top-left corner of each dashed box, indicating where to cut out the strips.

I Just Used My Head



Record the Problem:



Carla



Levi

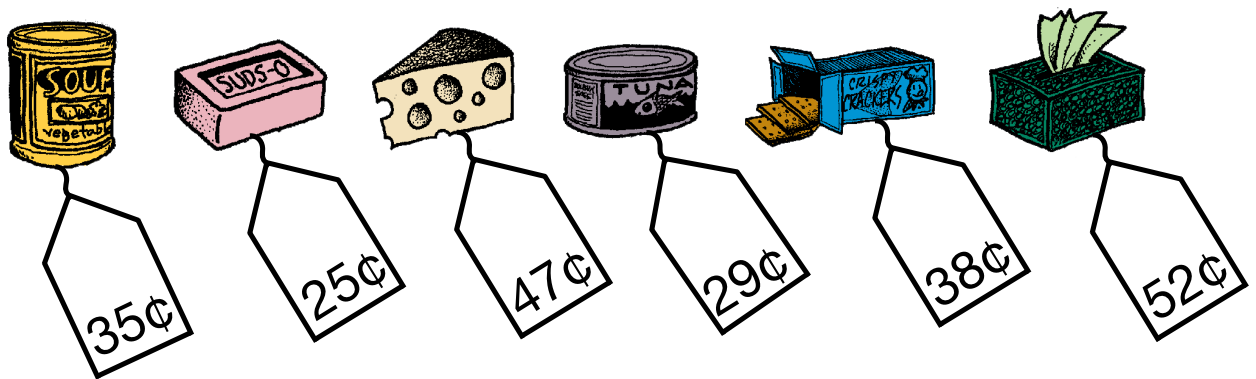
Acme Grocery Store



Dear Family Member:

We have been working on using strategies to solve addition problems with two-digit numbers. Your child may use the number line, 200 Chart, or an invented strategy to solve these problems. For each problem, your child should write the problem and explain how he or she solved it.

Thank you.



Find the total cost for each problem. Show or tell how you solved the problem.

1. A can of soup and a bar of soap cost _____.

2. A cheese wedge and a can of tuna cost _____.

Name _____ Date _____

3. A box of crackers and a box of tissues cost _____.

4. A box of crackers and a bar of soap cost _____.

5. Two cans of tuna cost _____.

6. A cheese wedge and a box of crackers cost _____.

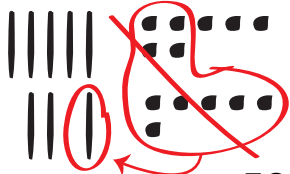
Solve with Base-Ten Pieces



Dear Family Member:

In class we are using our understanding of place value to add larger numbers. Drawing the base-ten pieces helps remind us how large a number is when we know its "place."

Thank you.

Problem	Drawing or Base-Ten Shorthand and Number Sentence
Ex. $\begin{array}{r} 57 \\ + 26 \\ \hline 83 \end{array}$	 <p>Number sentence <u>50 + 30 + 3 = 83</u></p>
1. $\begin{array}{r} 58 \\ + 26 \\ \hline \end{array}$	<p>Number sentence _____</p>
2. $\begin{array}{r} 25 \\ + 27 \\ \hline \end{array}$	<p>Number sentence _____</p>
3. $\begin{array}{r} 64 \\ + 52 \\ \hline \end{array}$	<p>Number sentence _____</p>
4. $\begin{array}{r} 76 \\ + 34 \\ \hline \end{array}$	<p>Number sentence _____</p>

Problem	Drawing or Base-Ten Shorthand and Number Sentence
5. $\begin{array}{r} 47 \\ + 37 \\ \hline \end{array}$	Number sentence _____
6. $\begin{array}{r} 42 \\ + 39 \\ \hline \end{array}$	Number sentence _____
7. $\begin{array}{r} 126 \\ + 155 \\ \hline \end{array}$	Number sentence _____
8. $\begin{array}{r} 96 \\ + 38 \\ \hline \end{array}$	Number sentence _____
9. $\begin{array}{r} 44 \\ + 49 \\ \hline \end{array}$	Number sentence _____

10. Jason solved Question 9. Show Jason how to estimate the answer to the problem and explain why his answer is not reasonable.

$$\begin{array}{r} 44 \\ + 49 \\ \hline 813 \end{array}$$

Paper-and-Pencil Addition



Dear Family Member:

Your child has been learning some different ways to solve addition problems using pencil and paper. We are reinforcing your child's growing understanding of the place value system. The two ways featured in this homework assignment are what we have called the expanded form method and the all-partials method. Examples of both are below.

Have your child explain them to you as he or she works these problems. You may have learned other ways to add, like the traditional algorithm. These methods will help your child develop conceptual understanding, flexibility, and fluency with multidigit addition.

Thank you.

Solve each problem using both ways. Look at the examples.

Example:

$$\begin{array}{r} 61 \\ + 28 \\ \hline \end{array}$$

Expanded Form

$$\begin{array}{l} 61 = 60 + 1 \\ + 28 = 20 + 8 \\ \hline 80 + 9 = \textcircled{89} \end{array}$$

All-Partials

$$\begin{array}{r} 61 \\ + 28 \\ \hline 80 \\ + 9 \\ \hline \textcircled{89} \end{array}$$

Expanded Form

All-Partials

1.
$$\begin{array}{r} 72 \\ + 16 \\ \hline \end{array}$$

Name _____

Date _____

2. 27
 + 34

Expanded Form

All-Partials

3. 45
 + 59

Expanded Form

All-Partials

4. 68
 + 37

Expanded Form

All-Partials

5. 73
 + 85

Expanded Form

All-Partials

Choose Which Way



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 Methods

Expanded Form

$$\begin{array}{r} 57 = 50 + 7 \\ + 36 = 30 + 6 \\ \hline 80 + 13 = 93 \end{array}$$

All-Partials

$$\begin{array}{r} 57 \\ + 36 \\ \hline 80 \\ + 13 \\ \hline 93 \end{array}$$

Compact

$$\begin{array}{r} 1 \\ 57 \\ + 36 \\ \hline 93 \end{array}$$

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

A. $74 + 19$

B.
$$\begin{array}{r} 66 \\ + 27 \\ \hline \end{array}$$

C. $59 + 25$

D.
$$\begin{array}{r} 26 \\ + 39 \\ \hline \end{array}$$

E. $47 + 38$

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

Add to 100 Game

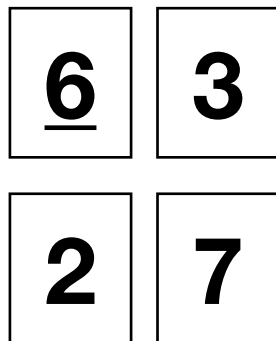
This is a game for two or more players. The object is to have the most cards at the end of the game.

Materials

- 4 sets of Digit Cards 0–9
- scissors
- pencil
- paper

Directions

1. Shuffle and deal out four cards to each player.
2. Each player uses the four cards to make an addition problem.
3. Each player solves his or her addition problem.
4. The player whose answer is closest to 100 takes everyone's cards and puts them aside.
5. Keep dealing four more cards to each player and making problems.
6. When all the cards are gone, the player who has collected the most cards wins.



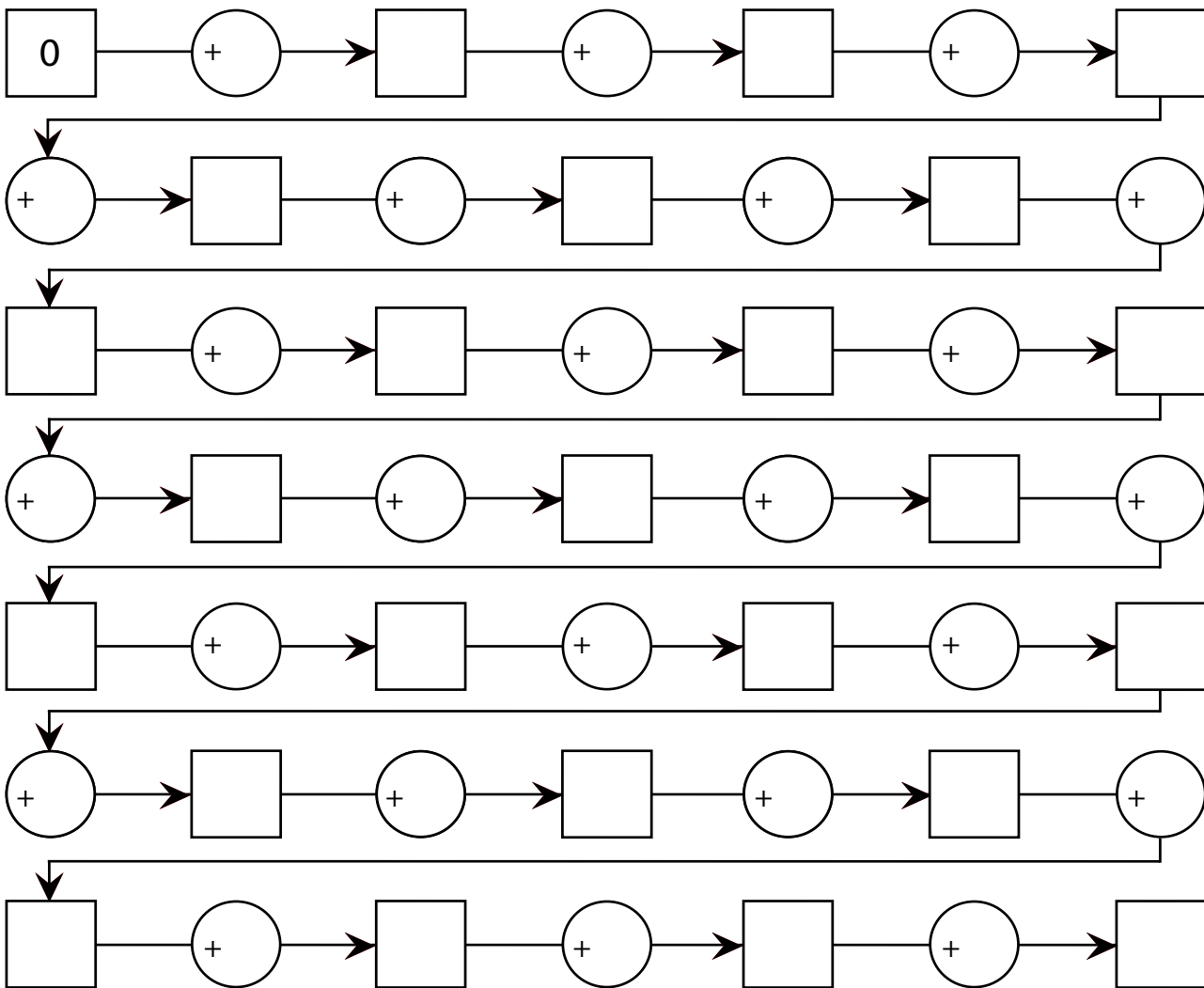
$$\begin{array}{r}
 63 = 60 + 3 \\
 + 27 = 20 + 7 \\
 \hline
 80 + 10 = 90
 \end{array}$$

Path to Glory at Home



This is a game for two players. The object is to be the first player to reach 100 exactly.

Start at 0. Take turns adding one of the following numbers: 1, 2, 8, 9, 15, 16, 24, 25, or 26. Write the number you add in a circle. Write the sums in the squares as you go.



Snack Shop Carryout



Using the *Shooting Star Snack Shop Children's Menu* from the *Student Activity Book*, choose 2–3 items and make up your own problem on the bill below. Show how you estimated and found your answer.

1. A.


Shooting Star Snack Shop		Customer's Name:
		_____ <u>Diana</u> _____
Item	Price (¢)	
_____	_____	
_____	_____	
_____	_____	
Show how you estimated:		Is your total reasonable?
Total _____		_____

B. Show or tell how you found the sum.

2.

Shooting Star Snack Shop		Customer's Name: _____
		Levi
Item	Price (¢)	
Grilled Cheese Sandwich	_____	
Potato Chips	_____	
_____	_____	
Show how you estimated:		Is your total reasonable?
Total _____		_____

3.

Shooting Star Snack Shop		Customer's Name: _____
		Nisha
Item	Price (¢)	
Pizza Slice	_____	
Carrot Sticks	_____	
Small Lemonade	_____	
Show how you estimated:		Is your total reasonable?
Total _____		_____

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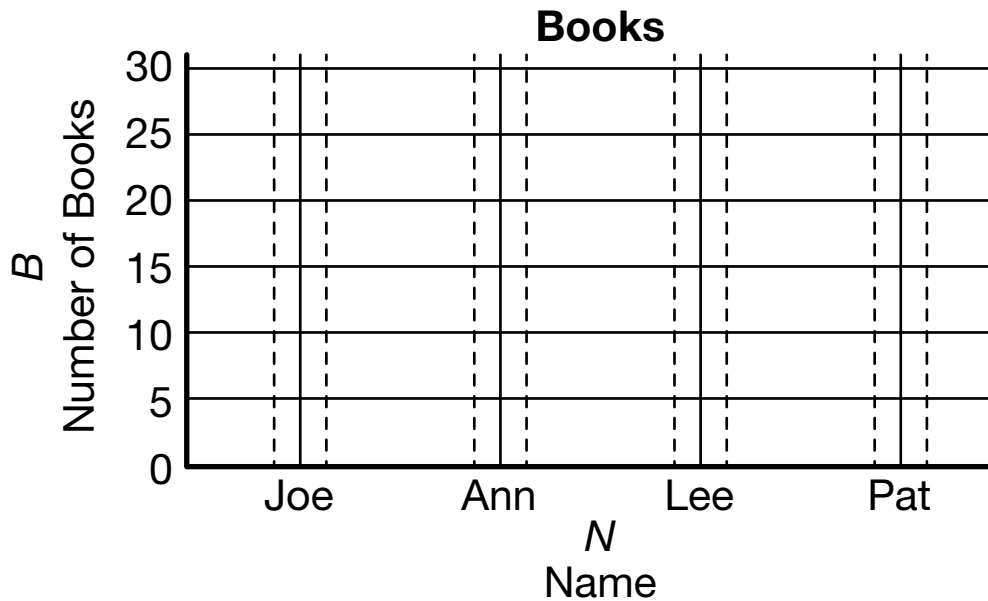
Midyear Test

Part 1 You will need a *200 Chart* and the *Addition Strategies Menu* in the *Student Activity Book Reference* section.

1. Make a bar graph of the number of books.

Books

<i>N</i> Name	<i>B</i> Number of Books
Joe	23
Ann	15
Lee	11
Pat	5



2. How many more books does Ann have than Pat?

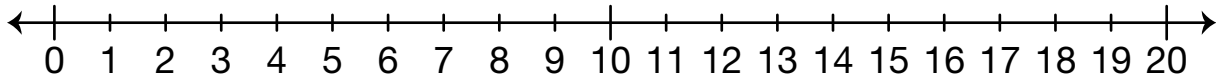
Number sentence _____

3. How many more books does Ann have than Lee?

Number sentence _____

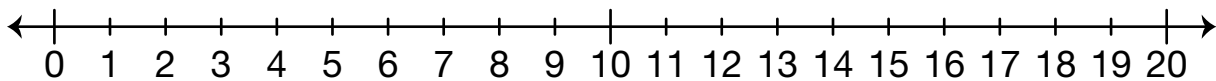
Show or tell how you solved the problem and write a number sentence. Remember to use labels.

4. Levi had 8 buttons. Diana gave him some more buttons. Now he has 15 buttons. How many buttons did Diana give him?



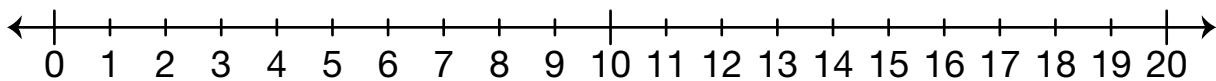
Number sentence _____

5. Sara had some tiles on her desk. Kim gave her 7 more tiles. Now she has 12 tiles. How many tiles did Sara have at the beginning?



Number sentence _____

6. Johnny has 12 coins. Nine of his coins are pennies and the rest are nickels. How many nickels does Johnny have?



Number sentence _____

7. Show each number using base-ten shorthand and a number sentence.

	Number	Base-Ten Shorthand	Number Sentence
A.	216		
B.	321		
C.	46		
D.	153		

- E. Write the numbers above in order from smallest to largest.

8. Use the *200 Chart* answer the questions.

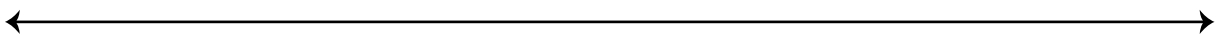
A. What number is 10 more than 86? _____

B. What number is 10 less than 145? _____

C. What number is 14 more than 82? _____

D. What number is 22 less than 74? _____

9. A base-ten hopper made one hop of 100, 8 hops of 10, and 12 hops of 1. Use the number line to show where he landed and write a number sentence.



Number sentence _____

10. Show or tell how to use a mental math strategy to solve $6 + 7 = \square$ two different ways.

One Way:

Another Way:

11. Show how to solve $48 + 36$ two different ways: using a mental math strategy and a paper-and-pencil method.

Mental Math Strategy

Paper-and-Pencil Method

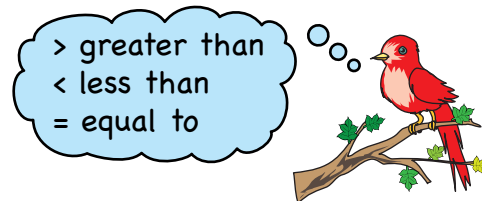
12. Compare these quantities. Use $>$, $<$, or $=$.

A. $6 + 7 \bigcirc 12 - 2$

B. $11 - 4 \bigcirc 4 + 3$

C. $9 + 3 \bigcirc 8 + 6$

D. $14 - 8 \bigcirc 12 - 6$



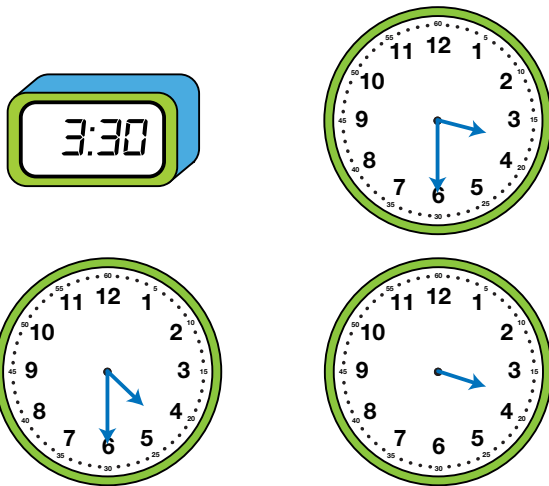
Part 2 You will need a centimeter and inch ruler, a *200 Chart*, and the *Addition Strategies Menu* in the *Student Activity Book Reference* section.

13. List the number sentences in the fact family for 3, 5, and 8.

14. Is it true or false? Circle true or false for each problem.

- | | | |
|---------------------------------------------------|------|-------|
| A. $415 = 100 + 40 + 5$ | True | False |
| B. $126 = 12 \text{ tens and } 6 \text{ ones}$ | True | False |
| C. $213 = 21 + 3$ | True | False |
| D. $164 = 1 \text{ hundred and } 64 \text{ tens}$ | True | False |

15. A. Circle all the clocks that show 3:30 PM.



B. What could you be doing at 3:30 PM?

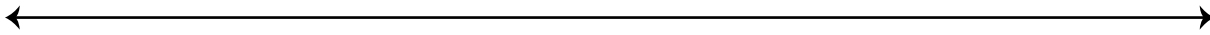
16. What is the value of each set of coins? Include labels.

A.  _____

B.  _____

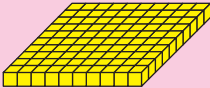


C.  _____

17. Show how to use a number line to solve $24 + 18$. Write a number sentence.



Number sentence _____

18. Complete the chart.

Number	Hundreds 	Tens 	Ones 	Number Sentence
145				
216				
307				

- 19.** Use your ruler to measure the length of the pencil in centimeters and inches. Remember to label your measurements.



Measurement _____

Measurement _____

- 20.** Peter measured the length of a marker. He measured it in both centimeters and inches. Circle the measurements that you think are reasonable.

5 inches or 13 centimeters 5 centimeters or 13 inches

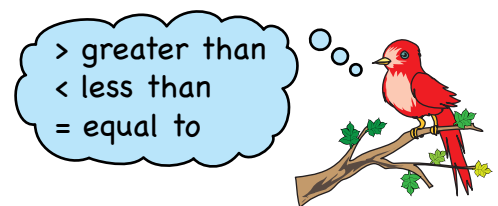
Show or tell how you decided.

- 21.** Compare these quantities. Use $>$, $<$, or $=$.

A. 100 cm 100 inches

B. 5 meter 5 inches

C. 1 meter 5 cm



22. Circle true or false for each number sentence.

A. $20 + 10 + 5 = 10 + 10 + 10 + 5$ True False

B. $20 + 20 + 5 = 10 + 10 + 10 + 5$ True False

C. $10 + 10 + 10 + 10 + 4 = 20 + 4$ True False

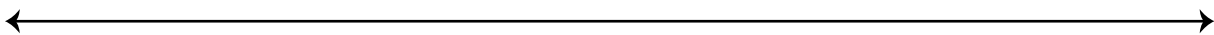
23. Solve the problem using a mental math strategy or paper-and-pencil method. Estimate to check if your answer is reasonable.

Estimate

$$\begin{array}{r} 49 \\ + 23 \\ \hline \end{array}$$

24. Show or tell how to solve $58 + 25$. Use the number line or explain how you would solve it on the 200 Chart.

Number Line:



200 Chart:

25. Moe solved the addition problem below.

Moe's Solution:

$$\begin{array}{r} 76 \\ + 19 \\ \hline 815 \end{array}$$

Estimate the sum and show or tell if Moe's answer is reasonable.

Use a mental math strategy or paper-and-pencil method to solve the problem.

My Solution:

$$\begin{array}{r} 76 \\ + 19 \\ \hline \end{array}$$