Grade 1 Curriculum Overview

Operations and Algebraic Thinking

- Add and subtract within 20 to solve word problems using a symbol to represent the unknown number.
- Use commutative and associative properties of addition to solve problems.
- Use counting to add to or subtract from a number.
- Use the symbols " for equals or does not equal" to determine if equations are true or false.
- Determine the unknown number in an addition or subtraction problem (i.e. 3 + ? = 5).
- Match the symbols (+, -, =) with their meanings.
- Show meaning of addition and subtraction by choosing the correct operation in a word problem.
- Decide which operation you would choose when moving to the right or the left on a number line.

Number and Operation in Base Ten

- Determine the value of each place in a two-digit number.
- Determine the value of the ones place in numbers such as 10, 20, 90.
- Compare the place value of two two-digit numbers by using the symbols for greater than, less than or equal to.
- Add and subtract within 20.
- Find the sum of three one-digit numbers.
- Mentally find 10 more or 10 less than a given number.
- Count and group numbers using the pictured tens and ones blocks (i.e. 3 tens and 8 ones = 38).
- Compare sets by using these terms: more, fewer, equal, least, most.
- Make reasonable estimates when comparing numbers.
- Count backward.
- Identify a reasonable estimate to a number problem.
- Order a set of numbers from least to greatest.
- Mentally calculate sums and differences.
- Count and group using bundles of tens and ones with the Punch-Out Sticks provided in this book.
- Represent multiplication as repeated addition (i.e. 4 people each eat 3 hot dogs).
- Match the correct number sentence to the pictured sets.
- Fill in the missing fractions on a fraction number line.
- Shade fractional parts (i.e. color 1/3 red).
- Determine larger and smaller fractions using pictured objects.
- Describe fractions in this manner: 3/4 is 3 out of 4 parts.
- Add and subtract with zero.
- Mentally calculate sums and differences.
- Use manipulatives to model problems by working with the Punch-Out Sticks provided in this book.
- Compare numbers by using the symbols for greater than, less than or equal to.
- Compare sets in terms of the numerical difference (i.e. how many more).
- Count by 2's, 3's, 5's, and 10's to 100.
- Count by 100's to 500.
- Use ordinal numbers to indicate position.
- Show understanding of base ten system (i.e. 1 ten = how many ones, 1 hundred = how many tens).
- Show equivalent forms of the same number (i.e. 6 + 3 = 9 or 3 + 3 + 3 = 9).
- Show the value of a number using pictured hundred blocks.
- Identify one more, one less, ten more, or ten less than a given number.
- Identify odd and even numbers.
- Double and halve numbers.
- Identify the number that comes before and after a given number.
- Identify a number that comes between two given numbers.

Measurement and Data

- Determine which tool of measurement is appropriate to use (i.e. measure weight with a scale).
- Measure using standard and non-standard units.
- Make reasonable estimates of measurement.
- Compare the length, weight and volume of two or more objects by using direct comparisons.
- Make comparisons in weight, temperature, length and time (i.e. heavier, hotter, longer, and earliest).
- Write and tell the time in hours and half-hours using both digital and analog clocks.
- Determine how much time has elapsed from one time to another.
- Identify concepts of time (i.e. tomorrow, yesterday, today, day after tomorrow, morning, afternoon, evening and A.M. or P.M).
- Match a specific time to a time of day (i.e. 10:00 A.M. is morning).
- Match everyday events to time of day (i.e. you would sleep at night).
- Relate length of time to events (i.e. which takes longer: reading a book or putting on socks?).
- Order events in relation to the amount of time each event takes.
- Match time it takes to complete events (i.e. it takes 1 ½ hours to watch a movie).
- Determine if you will be early or late depending on a given starting time and the amount of time you have.
- Convert units of time (i.e. 7 days = 1 week).
- Determine the earliest and the latest times given a set of analog clocks.
- Add time (i.e. 12 hours from 1:00).
- From graphs, charts, etc., interpret data with up to three categories and answer questions such as how many, how many more and how many less.
- Read a calendar and identify its components (i.e. date, month).
- Identify coins and bills and know their value.
- Use the symbols for dollars and cents correctly.
- Compare equivalent coins (i.e. 2 nickels = 1 dime).
- Determine how much more one coin is worth than another coin (i.e. how much more is a quarter than a dime?)
- Determine if you have enough money to purchase a given item.
- Read the temperature on a thermometer.
- Determine whether it is a hot or cold day when reading the temperature on a thermometer.
- Interpret data using bar graphs (both vertical and horizontal), picture graphs and tally graphs.
- Read a pictograph where a symbol represents more than one unit (i.e. 1 star = 10 pets).
- Compare data using terms: more, most, fewer and equal.
- Extend repeating and growing patterns by determining the rule.
- Identify the outcome of events using terms: most likely, more likely, least likely, same likelihood, possible, impossible, and certain.
- Use Venn diagrams to describe data.

Geometry

- Define the attributes of shapes.
- Describe portions of shapes using terms: halves, quarters, half of, fourth of and quarter of.
- Describe the whole using shares (i.e. 2 halves = a whole).
- Identify two and three-dimensional geometric objects (i.e. square, rectangle, circle, octagon, trapezoid, hexagon, rhombus, triangle, cylinder, cone, cube, rectangular prism, sphere).
- Describe one object in relation to another (i.e. to the right of, above and next to).
- Recognize congruent shapes in different positions.
- Identify which two shapes could be joined together to form a new shape.
- Identify attributes of a cube by number of faces (sides), vertices (corners).

Extras: Hundred Chart, Punch-out Sticks, Addition and Subtraction Flash Cards, Math Facts Sharpener Sheets, Dalmatian Station Attribute Page

1st Grade

IMPORTANT!
Instructions for Parents

- To use Summer Math Skills Sharpener, simply tear off a page and have your child complete both sides. The program is designed to be used *3-4 days per week for 10 weeks*.
- Our math books now support the Common Core Curriculum and the Standards of all 50 states. Therefore, some materials may not have been presented to your child. **Please allow your child to skip concepts not yet learned. Introduce new concepts only if your child shows readiness**.
- Check answers immediately for optimal feedback. You may want to offer small incentives to your child for pages successfully completed. An answer sheet is provided at the back of the book. A Lesson Tracker has also been included for your convenience.
- Younger children may need assistance reading word problems.
- **Help pages** have been added at the front of the book to clarify certain concepts.

  - Allow your child to use a calculator only for those problems using this icon.

  - **Hundred Chart**: Problems designated with this icon are to be used with the chart at the back of the book. Your child may use buttons, beans, coins, etc. as markers.

  - **Dalmatian Station**: Problems with this icon are to be used with the Dalmatian chart at the back of the book. Your child may use buttons, beans, coins, etc. as markers.

  - **Hands-on**: Punch-out sticks have been provided to assist with some of the Hands-on problems. When this icon appears, simply have your child count out the required number of sticks and manipulate them to suit the problem.

- Addition and subtraction flash cards are provided for extra practice.
- "Math Facts Sharpener" pages are located at the back of the book. Have your child complete one side of each of the five pages weekly.
- Adjust this book to your vacations, etc. Presentation of mixed concepts on every page ensures that all skills are reinforced. Therefore, pages may be used in any order.
- If your child experiences difficulty with a few concepts that have been taught in the classroom, address the problem with his or her teacher in the fall; more consistent problems indicate that a tutor may be needed.

We appreciate your comments. Please send us the evaluation page included in this book before November 1st, after your child has returned to school in the fall and you are able to determine the success of the Summer Math Skills Sharpener.

Thank you for your assistance.

GRADE 1 HELP PAGES

TEN BLOCKS

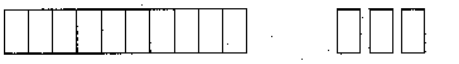
What are they?

In most schools children use commercially produced base – ten blocks. After many hands-on experiences, children learn to recognize their symbolic representation on paper.

Examples:

13 = 1 ten + 3 ones

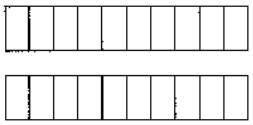
Base-ten representation:



1 ten + 3 ones

20 = 2 tens + 0 ones

Base-ten representation:



2 tens + 0 ones

What is the purpose?

Counting and grouping large collections of different kinds of materials help children see that they can count by ones or, more efficiently, group and count when faced with large quantities. Both methods have the same result. Recognizing groups and organizing materials (for easier counting) help children discover that 10 is the basis of our place value system.

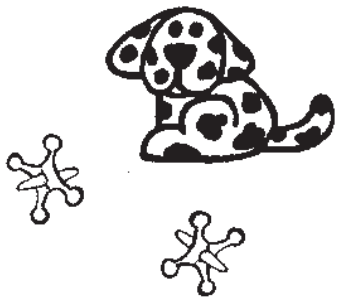
See "Instructions to Parents" on how to use punch-out sticks (provided at the back of this book) for manipulation.

Lesson #14

1. Write a number sentence to go with this story: Heidi invited 25 children to her party. 10 of the children went home early. There were 15 children left.

_____

2. 11 - 9 = _____



3. 3 + 4 + 5 = _____

4. Circle the problems that equal 12:

20 - 10 6 + 6 5 + 5 9 + 3 8 + 3 24 - 12

5.
$$\begin{array}{r} 40 \\ +\ 40 \\ \hline \end{array}$$

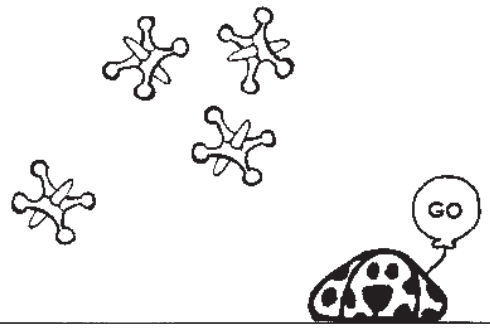
6. A. One half of 10 is _____. B. One half of 6 is _____.

7. 10 jacks are in a bag. 5 are red and 5 are blue. What are the chances of pulling out a blue jack? Circle:

A. greater than pulling out a red jack

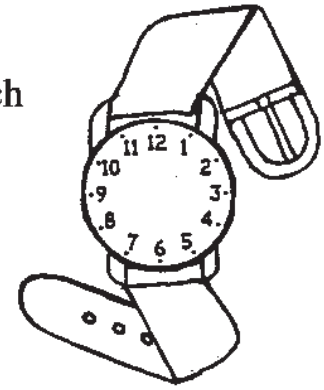
B. less than pulling out a red jack

C. the same as pulling out a red jack



Lesson #14 (continued)

8. Draw in the hands to make the watch read two hours past 10:00.



9. 40 + 10 + 10 = _____

10. Circle the day before Saturday: Tuesday Friday Monday

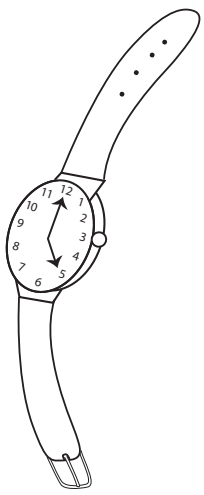
11. 18 cars were parked at the gas station. 3 cars were red. How many were not red?

_____

12.  Jung had these coins:

Draw two more coins to make his money equal 50¢

Lesson #27



1. Dinner is at 5:30 p.m. Are you early?

5:00

Circle: Yes or No

2. What is 7 more than 11? _____

3. Fernando is 12 years old. Ryan is 3 years younger. How old is Ryan? _____

4. Circle groups of ten.

How many groups are there? _____ groups

5. How many ☐'s (squares) would you have to add to the set of ☐'s (squares) below to have 10 ☐'s (squares) _____

☐ ☐ ☐ ☐ ☐ ☐

6. Complete the pattern of counting by 2's.

2 + 2 = 4 4 + 2 = 6 6 + 2 = 8

_____ + 2 = _____ _____ + 2 = _____

Lesson #27 (continued)

7.

JULY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
			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	

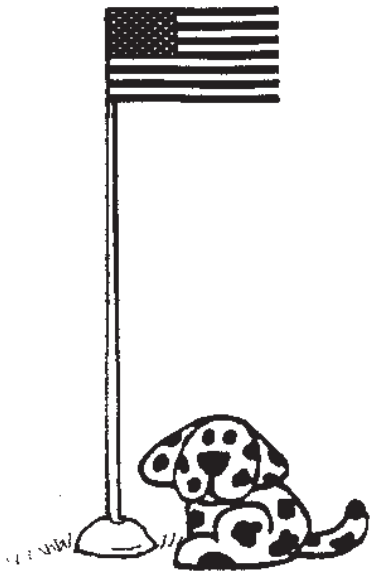
Using the calendar to the left:

A. What <u>date</u> is the last Monday? _____

B. What <u>day</u> is July 1st.? _____

C. How many Fridays are in July? _____

8.
$$\begin{array}{r} 37 \\ +\ 42 \\ \hline \end{array}$$



9. Is 15 between 16 and 20? Circle: Yes or No

10. Fill in the missing numbers.

A. ☐ + 2 = 7 B. 9 = 10 - ☐

11. Desta has 5 aunts. Each aunt has 2 pets. How many pets do Desta's aunts have altogether? (Hint: count by 2's) _____

12. Use these symbols to answer the questions below:

= (equals) or ≠ (does not equal)

A. 6 + 3 ☐ 7 + 2 B. 2 + 2 + 3 ☐ 4 + 4

Lesson #32

1. A. 10 – 0 = _____ B. 1,000 + 0 = _____

2. Match the time on the left with the time of day on the right:

A. 8:30 P.M.	morning
B. 10:00 A.M.	afternoon
C. 1:30 P.M.	evening

3. Measure the **length** of any table in your house by using a pencil. How long is it?

_____ pencils long

4. Look at this number line and answer the questions below.

A. Place your pencil on number 3. Add 4. Did you move your pencil to the **right** or **left** ? (Circle)

B. Place your pencil on number 10. Move 5 places to the left. Did you **add (+)** or **subtract (–)** ? (Circle)

5. A. What is **one more** than 50? _____

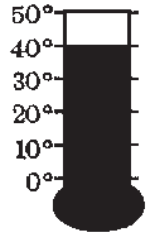
B. What is **one less** than 50? _____

6. Draw a line to match each symbol with its meaning.

A. equals	–
B. plus; and; add; join together	=
C. take away; subtract; minus	+

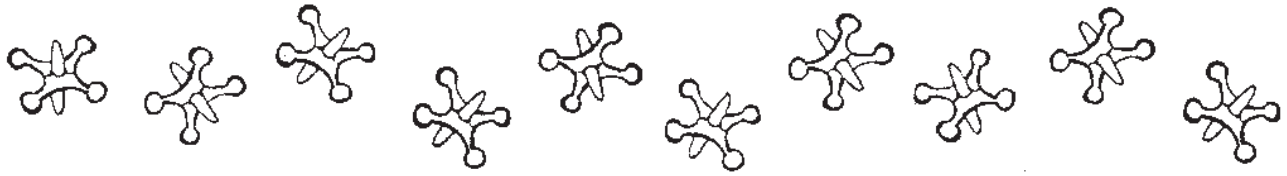
Lesson #32 continued

7. What temperature does this thermometer show?

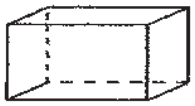


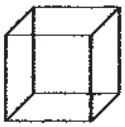
_____ °F

8. With your pencil divide these jacks into 3 sets. Divide them so that each set has a **different** number of jacks in it.



9. Match the following:

A. 

B. 

cylinder

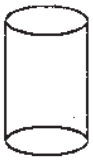
cone

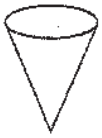
cube

rectangular prism

sphere

C. 

D. 

E. 

10. How many **different** single scoop combinations can you make with vanilla ice cream, chocolate chip ice cream, a waffle cone and a sugar cone?

_____

11. The number sentences below show a **sum** of 9. Can you think of one more?

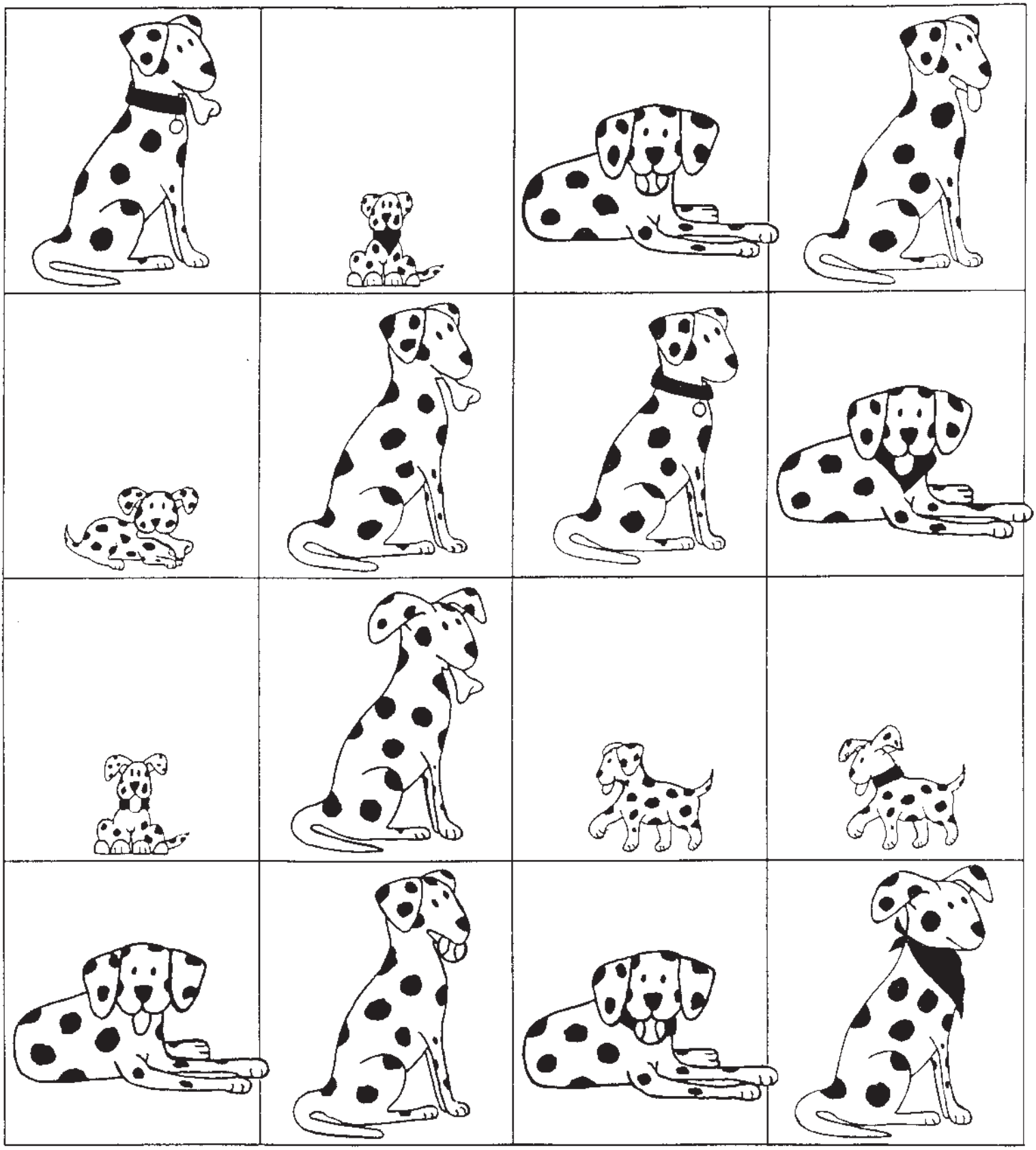
6 + 3 = 9 2 + 2 + 5 = 9 _____ = 9

12. If today is Saturday, what is the **day after tomorrow**? _____

HUNDRED 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

Dalmatian Station



Math Facts Sharpener • Grades 1 and 2

0 +5	2 +4	9 +9	0 +1	3 +6	6 +8
8 +7	0 +10	1 +3	7 +7	4 +5	2 +6
9 +8	8 +1	0 +7	4 +3	5 +6	7 +6
8 +5	1 +6	2 +3	5 +5	6 +4	7 +3
9 +4	0 +2	4 +7	6 +1	9 +7	5 +8
7 +1	5 +9	2 +7	8 +9	4 +1	7 +9
8 +3	1 +2	6 +6	3 +7	5 +1	3 +4

5

$$\begin{array}{r} 1 \\ +\,1 \\ \hline \end{array}$$

4

$$\begin{array}{r} 1 \\ +\,2 \\ \hline \end{array}$$

3

$$\begin{array}{r} 1 \\ +\,3 \\ \hline \end{array}$$

8

$$\begin{array}{r} 1 \\ +\,4 \\ \hline \end{array}$$

7

$$\begin{array}{r} 1 \\ +\,5 \\ \hline \end{array}$$

6

$$\begin{array}{r} 1 \\ +\,6 \\ \hline \end{array}$$

11

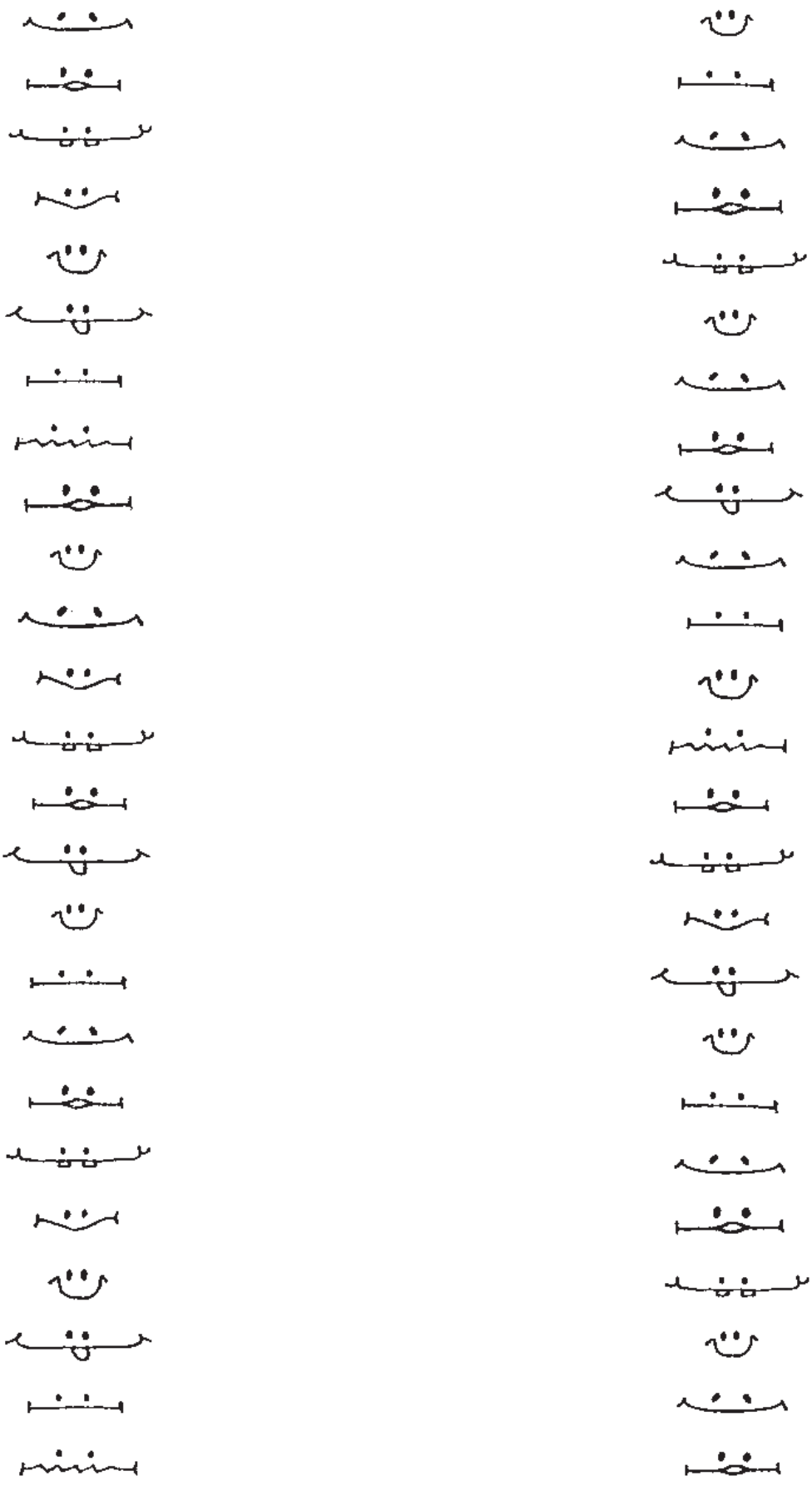
$$\begin{array}{r} 1 \\ +\,7 \\ \hline \end{array}$$

10

$$\begin{array}{r} 1 \\ +\,8 \\ \hline \end{array}$$

9

$$\begin{array}{r} 1 \\ +\,9 \\ \hline \end{array}$$



PUNCH-OUT STICKS

1ST GRADE ANSWER KEY

Lesson:	Problem Numbers: 1	2	3	4	5	6	7	8	9	10	11	12
1	5+6 8+3 -11	16, 20 24, 28	33	See below	A. 6 B. 6	7th heart 2nd heart	54	4 hours	5, 6, 7	Mickey 5 Sam 3	20	Answers will vary.
2	6	22	3 tens 6 ones	68	29, 86, 11	35	A. circle B. star	A. 41 B. 61	B	no	1 lollipop	A. color 1 B. color 1 C. color 2
3	11	A. 4 B. 4 C. 3	3 cm	8	5	30	Color 1 star	8	12	5¢, –, 5	early	A. 6, 3 B. 3, 6
4	19, 18 17,16	44, 46 48, 50	12	12-2, 10-0 50-40, 10+0	35¢	73	10, 28	50¢ 15¢	12	Monday	75 < 81	See below.
5	9	A. 5 B. 4	3 ten blocks 8 singles	A. 8 B. 80	20¢	13 children	6	A. 9:30 B. 9:00	12	+, –	A. 7 B. 12 C. 24 D. 60	7 numbers
6	A. yes B. yes	no	no	2	4	A. 10 B. 10	A. 100 B. 100	A. 90 A. 90	5	A. 7 days B. 14 days	2 + 3 = 5 5 - 2 = 3 5 - 3 = 2	A. Isaac B. 10 min
7	left	79	9	B	8, 9, 13 19, 20	8:00	101	100 pennies 10 dimes 4 quarters	33	10 groups	2, 2, 3	Answers will vary.
8	12	23	10, 20, 40, 60, 80	1	6, 2	33	▭	A	A. 5 B. 50	11	1, +, 2, 10	8 + 2 = 10 7 + 3 = 10 6 + 4 = 10
9	77	no	A. 2, 0 B. 3, 0 C. 9, 0	28	33 pencils	30	yes	5	25	7:15 a.m.	5+4 8+1 10-1	A. color 1 B. color 2
10	46, 56, 66 76, 86	3	A. 2nd B. 20th C. 8th	20	15¢	80, 65, 55	9	7 seeds	14	30¢	<	A. 76 B. 81
11	32	0	Yellow rectangle Green octagon Blue square	13	32¢	yes	A. no B. 3:30 C. 3	10	yes	4, 3, 3, 4	11 marbles	Answers will vary.
12	5	4¢	81	20¢	2	20	4	0	3	89	2 leaves	92 days
13	60	First, second, last	8	10	50	2	9 eggs	5	B	B	50 inches	46¢ 69¢
14	25-10=15	2	12	6+6, 9+3 24-12	80	A. 5, B. 3	C	12:00	60	Friday	15 cars	1 penny, 1 nickel
15	4	1, 15, 23	18¢	9	B	67	78	56	yes	8	1/2	50
16	A. 24 B. 4	8 hats	9:00	A.	32, 31 30, 29	34	15	40	4 cups	2	A. 40 min B. 1 1/2 hours C. 3 hours	55 people
17	cold	See below.	2 candy corns	66	5+4 6+3 10-1	99	35	yes	30	21 sticks	54, 12	Answers will vary.
18	10	A. 2 B. 0	4 tens	34	2+8, 1+9, 6+4, 7+3, 5+5	3	A. 12:00 B. No	1	5 in each group	12	11 books	

Lesson 1, #4 55, 56, 57, 65, 67, 75, 76, 77 Lesson 4, #12 1 dime + 10 pennies, 10 pennies + 2 nickels, 2 nickels + 1 dime, 5 pennies + 1 nickel + 1 dime
Lesson 17, #2 Numbers ending in 1, 3, 5, 7, 9