BANA Guidelines for the Transcription of Early Educational Materials from Print to Braille

Developed Under the Sponsorship of the Braille Authority of North America

Published by the
Braille Authority of North America

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Recognition

This document was developed by the Braille Authority of North America's Ad-Hoc Committee for Early Literacy Materials Production.

Bonnie Read, 2007-2010, Chair 2010-2020
Diane Wormsley, Liaison, 2006-2015
Cathy Senft-Graves, Board Liaison, 2016-2020
Betsy Burnham, Chair 2003-2010
Jeri Cleveland, 2003-2006
Marcia Nigro Dresser, 2003-2006
Warren Figueiredo, 2003-2009
Ann Kelt, 2003-2016
Ann MacCuspie, 2003-2010
Edie Mourre, 2003-2006
Diane Spence, Consultant 2008-2020
Susan Spicknall, 2012-2020
Anna Swenson, Consultant 2012-2020
Jane Thompson, 2003-2020
Mila Truan, Ed.D., 2003-2006
Lynn Vuocolo, 2003-2006
Dorothy Worthington, 2008-2020

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Introduction

These guidelines were developed by the BANA Ad Hoc Committee for Early Literacy Materials Production (ELMP) using results of research and input from teachers, transcribers, and braille readers after years of using the draft document entitled *Promising Practices for the Transcription of Early Literacy Materials* (*Promising Practices*). The *Promising Practices* was developed by the ELMP and an American Printing House for the Blind (APH) focus group, comprised of transcribers, teachers of the visually impaired, reading specialists, braille readers, and literacy experts. The *Promising Practices* were suggested guidelines BANA approved for a trial period before final decisions were made.

The ELMP Committee wishes to thank all of those who participated in the research and responded with comments regarding the *Promising Practices*.

How to Use These Guidelines

The purpose of these guidelines, *BANA Guidelines for the Transcription of Early Educational Materials from Print to Braille* (formerly *Promising Practices*), is to provide directions for the transcription and formatting of early literacy materials (kindergarten through third grade), including materials to be discarded after use, for primary readers. These guidelines apply to the transcription of both contracted and uncontracted braille.

Transcribers should be familiar with *Braille Formats: Principles of Print-to-Braille Transcription, 2016* as referred to in these guidelines.

Reference should be made to the *Rules of Unified English Braille, Second Edition, 2013* codebook (called *Rules of UEB 2013* in this document) as necessary.

Reference materials or codebooks mentioned in this document can be accessed online. See "Codebooks and Guidelines" at the end of the guidelines section for a list of available books.

Early literacy materials are transcribed with some additional unique requirements since young students may have different skill levels in terms of reading and recognizing illustrations or graphics. Most frequently, the transcriber will not know an individual student's skill level, or will be transcribing the materials for multiple users. The role

of the transcriber is to follow the guidelines as stated. However, if a transcriber has information from a teacher who is asking for materials to be formatted differently due to a student's skill level, the transcriber should try to accommodate those changes within reason.

Underlying Principles to Consider When Transcribing Early Educational Materials

Follow the guidelines set forth in *Braille Formats: Principles of Print-to-Braille Transcription, 2016*, unless specified below.

Teacher's Reference Materials

An important guideline given in this document is the inclusion of the "Teacher's Reference Materials" inkprint pages placed in the front of each braille volume. These print pages correspond to the braille pages that contain information found on the Special Symbols and Transcriber's Notes pages. Transcriber's notes found within the volume are listed by their print page number.

Font Attributes

In early literacy materials it is important that the shape or "look" of a word remains consistent. A font attribute changes the "shape" of the word, making the word less recognizable for newer braille readers. Guideline 5 of this document provides information for when to omit or include font attributes.

Transcription of Homework or Daily Worksheets

Transcribers working with a teacher should follow the directives given by that teacher; however, the transcriber should inform the teacher that there are formats required for textbooks and tests.

Tactile Graphics

Currently, there is no certification for Tactile Graphic producers in the United States or Canada. There is a difference between visual and tactile perception; therefore, the transcriber should make every effort to become proficient in the production of tactile graphics materials, using the available guidelines.

The creation of any tactile materials should follow Graphics for Early Grades, Unit 11 of *BANA Guidelines and Standards for Tactile Graphics, 2010*, and any succeeding and approved BANA Tactile Graphics guidelines.

In early educational texts which are full of illustrations, the transcriber must decide whether or not a graphic needs to be created or a transcriber's note written. If it is not possible to recreate visual

material in a clear, tactilely-understandable form, an age-appropriate transcriber's note of the action or scene in the illustration should be supplied. A short description such as "boy running" or "rainstorm" will give the braille reader an idea of what is shown in the picture and may inspire him/her to ask a teacher or classmate questions about the picture.

Pictures or drawings requiring the student to name the depicted object, such as pictures of animals, should be omitted from pre-kindergarten and kindergarten books. This omission needs to be stated on the Transcriber’s Notes page in the Teacher’s Reference Materials. For first through third grades a simple raised tactile shape may be used, or a description of the object may be given using language appropriate for the grade level of the book.

Basic shapes and outlines of maps may be drawn as a tactile graphic for kindergarten texts. More detailed diagrams and maps may be included by first through third grades, but the diagrams should be simplified to reduce clutter. For example, rivers, lakes, mountains, cities or objects that are not labelled may be omitted from the tactile drawing.

Guidelines for the Transcription of Early Educational Materials from Print to Braille

Guideline 1: Physical Page Attributes

1.1 Page Sizes

(*Braille Formats 2016*, Section 1.7)

1.1.1 The standard page size is 11½ x 11 inches, 40 cells per line, 25 lines per page.

1.1.2 Kindergarten and first grade may use paper 8½ x 11 inches or paper designed to meet the student's needs.

1.2 Volume Size

(*Braille Formats 2016*, Section 1.6.1)

1.2.1 Kindergarten through third grade should have no more than 50 sheets of braille paper per volume. End each volume at a logical break in text (e.g., at the end of a unit, part, chapter, or section).

1.3 Embossing

1.3.1 Kindergarten through third grade material may be embossed as inter-point or single-sided (agency decision).

1.4 Spacing

(*Braille Formats 2016*, Section 1.7 and ELMP Guideline 6)

1.4.1 Kindergarten and first grade: Double-space with the following exceptions:

a. single-space title page and supplementary title pages
b. single-space puzzles
c. single-space spatial problems in math textbooks
d. single-space all titles of tactile graphics
e. single-space all charts and/or tables
f. single-space between column heading and separation line
g. single-space alphabetic page number

h. do not insert a blank line after the top box line
i. do not insert a blank line before the bottom box line.

1.4.2 Second and third grades: single-space all materials.

1.4.3 Signs of operation and comparison for math transcription using UEB (*UEB Guidelines for Technical Material, 2014*, Section 3.1)

a. Kindergarten and first grade: spacing within an equation, before and after signs of operation, may be used for young readers.
b. Second and third grades: signs of operation are unspaced from preceding and following terms but signs of comparison are spaced.

1.5 Word Division

Follow *Braille Formats 2016*, Section 1.10 for word division.

1.6 Alphabetic Page Numbering

(*Braille Formats 2016*, Section 1.14)

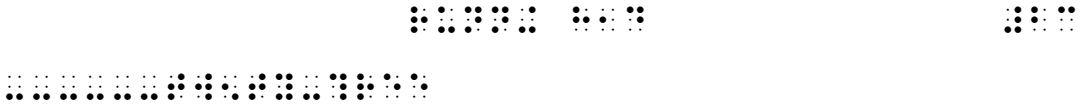
1.6.1 When transcribing a double-spaced book, single-space the lines that show the numeric page number and the alphabetic page number, with a blank line above and a blank line below. The alphabetic page number is preceded by six unspaced dots 36.

Example 1-1: Double-spacing

There is no blank line above the numeric page number when it begins a new page. The alphabetic and numeric page numbers are shown on line one followed by a blank line.

(blank line)

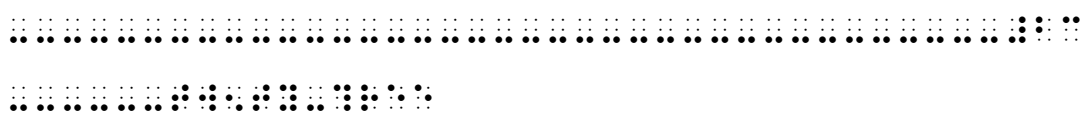
When using a running head, place the numeric print page number on line one and the alphabetic print page number at the left margin on line two.



(blank line)

When the print page changes in the middle of a braille page, place the alphabetic print page number on the line after the numeric print page change indicator.

(blank line)



(blank line)

Guideline 2: Transcriber-Generated Pages

See *Braille Formats: Principles of Print-to-Braille Transcription, 2016,* Section 2 for transcribing all preliminary pages.

2.1 Special Symbols Page

Early educational materials follow *Braille Formats 2016*, Section 2.5 guidelines which include the following:

2.1.1 All symbols are preceded unspaced by the dot locator for "mention" (⠸⠼), when a braille symbol is set apart, as in a symbols list or transcriber's note

2.1.2 List opening and closing transcriber's note indicator

2.1.3 List all font attributes which include: boldface, italics, transcriber defined typeform indicators for significant print typeform changes, such as colored type, crossed out type, highlight; etc.

2.2 Transcriber's Notes Page

(*Braille Formats 2016*, Section 2.6)

In addition to the items listed in Section 2.6, the Transcriber's Notes page:

2.2.1 Lists the use of these guidelines, *BANA Guidelines for the Transcription of Early Educational Materials from Print to Braille*

2.2.2 Identifies special formats used throughout the volume (See ELMP Guideline 7.)

2.2.3 Lists all the transcriber's notes, using the corresponding print page number with the appropriate continuation letter, that appear in the volume at the kindergarten and first grade levels.

2.2.4 The samples on the following page show how the transcriber's notes, found within a volume, are listed on the Transcriber's Notes page.

Sample 2-1: Sample of Teacher's Reference Materials

SPECIAL SYMBOLS USED IN THIS VOLUME

⠸⠸ Dot locator for "mention"; used before each listed symbol

⠸⠸⠈⠸⠸ Yellow highlighted symbol indicator

⠸⠸⠈⠸⠒ Opening transcriber's note indicator

⠸⠸⠈⠸⠆ Closing transcriber's note indicator

⠸⠸⠈⠆ Boldface symbol indicator

⠸⠸⠈⠸⠂ Blue highlighted word indicator

⠸⠸⠸⠸⠸ Red type passage indicator

⠸⠸⠸⠸⠄ Red type terminator

⠸⠸⠐⠒ Opening parenthesis

⠸⠸⠐⠆ Closing parenthesis

⠸⠸⠸⠆ Italic symbol indicator

⠸⠸⠸

TRANSCRIBER'S NOTES

This volume has been transcribed according to the *BANA Guidelines for the Transcription of Early Educational Materials from Print to Braille*.

Print proofreading marks are not used in this braille edition. The original sentence(s) is (are) transcribed first, under the heading "Draft." This is followed by a list of the line numbers and the changes that need to be made within each line. The corrected sentence(s) is (are) transcribed following the list of changes, under the heading "Corrected." Each sentence begins in cell 1. (See ELMP Guideline 7.)

Pictures to be identified by name are omitted.

The lines or boxes depicting the word shape are omitted.

The writing activity is omitted.

Transcriber's notes that appear in this volume are listed below, including the pages on which they appear.

Page 214 Pictures are described.

Page 41 Pictures

Page 195 nk means nickel

Page 108 Words describe pictures.

Guideline 3: Transcriber's Notes

3.1 Transcriber's Notes

3.1.1 Transcriber's notes may be included in all grades. These notes are to be written in language that reflects the grade level of the book, and are to be as brief as possible. The guidelines for the content and placement of transcriber's notes are found in *Braille Formats 2016*, Section 3.2 and 3.3.

3.1.2 A transcriber's note is used to:

a. indicate and explain to the reader an omission, a change in format, or an addition to the print
b. indicate an interruption of text
c. describe pictures
d. list keys
e. indicate an uncommon use of a braille symbol

3.1.3 Format for transcriber's notes:

a. begin in cell 7 with runovers in cell 5
b. notes are to be preceded and followed by the transcriber's note indicators, (⠸⠸⠣ and ⠸⠸⠜)
c. the transcriber's note indicators must appear on the Special Symbols page, and in the Teacher's Reference Material

3.1.4 Use the print page number with the appropriate continuation letter when listing a transcriber's note from within the volume on the Teacher's Reference Page. List them in the order they appear in the volume.

3.1.5 Kindergarten and first grade transcriber's notes are limited to as few words as possible to indicate a change or omission.

Example 3-1: A picture is omitted from a book.

Transcriber's note: Picture omitted.

or

The note could just indicate that there is a picture in print.
Transcriber's note: Picture

3.1.6 Second and third grades: Transcriber's notes are written in language that reflects the grade level of the book and should be as brief as possible.

Example 3-2: Pictures identified by name are described.

Transcriber's note: Log Cabin: A house made of logs.

3.1.7 The following are suggested guidelines for transcriber's notes that might be included on the Transcriber's Notes page (see ELMP Guideline 2), within the Teacher's Reference Materials.

a. Omitted or described pictures for the student to identify by name:

Kindergarten:

Picture omitted.

First through third grades:

Pictures to be identified by name are described.

b. Workbook for which the student will be completing the assignment on an answer sheet:

The directions are brailled as they appear in print.

c. Activities that are omitted.

The writing activity is omitted.

Guideline 4: Inkprint Pages

4.1 Inkprint Pages

Inkprint pages are print pages bound at the beginning of each braille volume.

4.2 Title Page

(*Braille Formats 2016*, Section 2.3)

4.2.1 An inkprint copy of the title page must be included in each braille volume of early educational materials.

4.3 Teacher's Reference Materials

4.3.1 Following the inkprint title page, there are additional inkprint pages which are recommended. They are titled "Teacher’s Reference Materials."

4.3.2 In each braille volume the Teacher’s Reference Materials should include the following:

a. a centered heading which reads: Teacher’s Reference Materials
b. a print copy of the Special Symbols page(s)
c. a print copy of the Transcriber’s Notes page(s), including a listing of each transcriber’s note from within the braille volume. These are identified by print page number, with the appropriate continuation letter, and are brailled in the order in which they appear in the volume.

Guideline 5: Use of Typeform Indicators

Braille Formats 2016, Section 5

5.1 Font Attributes and Typeform Indicators

Typeform indicators are used in braille to represent print font attributes.

5.1.1 The transcriber should evaluate the material to determine if it is necessary to include any of the font attributes shown in print. Typeform indicators should be kept to a minimum in early literacy material.

5.1.2 Kindergarten. All font attributes are omitted and the omissions are stated in a transcriber's note on the Teacher's Reference Materials page(s).

5.1.3 First grade

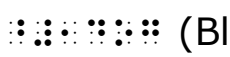
a. Font attributes should be reflected **only** when necessary.
b. When font attributes are shown, italics may be used to indicate both italics and bold, if it is **not** necessary to distinguish the bold separately. The transcriber should evaluate each situation to determine if more than one typeform needs to be indicated.
c. There may be situations where it is absolutely necessary to indicate more than one typeform at the first grade level. If so, follow *Rules of UEB 2013*, Section 9.

5.1.4 Second and third grades

a. Font attributes may be shown, but still kept to a minimum. For appropriate typeform indicators, follow *Rules of UEB 2013,* Section 9.
b. If it is necessary to indicate highlighted or colored word(s), use transcriber-defined typeform indicators. All indicators must be included in the Special Symbols list, both print and braille. (See *Rules of UEB 2013*, Section 9 and *Braille Formats 2016*, Section 5.5.)

Example 5-1

(Yellow highlighted word)

 (Blue word)

5.1.5 The typeform indicator and the word it refers to must be on the same line.

5.2 Part-word Emphasis

Follow *Braille Formats 2016*, Section 5.7.

5.2.1 Kindergarten. Part-word emphasis is omitted and the omissions are stated on the Transcriber's Notes page in the Teacher's Reference Materials.

5.2.2 First through third grades

a. Include part-word emphasis indicators when it is necessary for teaching.
b. In first and second grades uncontracted braille may be used for readability and clarity.
c. Include a transcriber's note before the paragraph or sentence containing part-word emphasis and include this on the Transcriber's Notes page in the Teacher’s Reference Materials.

Example 5-2

The italics show part-word emphasis.

or

The italics show part-word emphasis. Uncontracted braille is used for clarity.

Guideline 6:
Line Spacing Relevant to Headings, Poetry, Blocked Text, and Tactile Graphics

6.1 Line Spacing in Double-Spaced Books

6.1.1 Double-spacing is often requested when a reader is learning braille. Use two blank lines where normally one is used (*Braille Formats 2016*, Section 1.7.2) in the following situations:

a. between paragraphs of blocked text
b. between stanzas in poetry and plays
c. before and after a centered heading
d. before and after a list
e. before a cell-5 heading. A single blank line is needed after the heading
f. before and after box lines

6.1.2 Two blank lines should be included whenever possible between a graphic and the surrounding text. However, if the extra blank lines would require pertinent text to be placed on a separate page, the extra blank lines may be eliminated.

6.1.3 One blank line is inserted before and after a page change indicator.

Guideline 7: Workbooks and Spellers

Braille Formats 2016, Section 17

7.1 Horizontal Word Lists

7.1.1 Words displayed horizontally across the print page must fit on a single braille line. Separate each word with two blank cells for kindergarten through third grade. (*Braille Formats 2016*, Section 9.2.4)

7.2 Mathematical and Nonalphabetical Signs

7.2.1 The BANA *Guidelines for the Transcription of Early Educational Materials from Print to Braille* apply to both Nemeth within UEB contexts and UEB mathematical transcriptions. (*Braille Formats 2016*, Section 17)

7.2.2 The symbols listed in *Braille Formats 2016*, Appendix G must be listed on the Special Symbols page. (*Braille Formats 2016*, Section 3.4.2)

7.3 Proofreading or Editing Marks

(*Braille Formats 2016*, Section 18.6)

7.3.1 Kindergarten

Omit all proofreading or editing marks.

The Teacher's Reference Materials page(s) should indicate that there are no braille symbols for proofreading or editing marks.

7.3.2 First through third grades

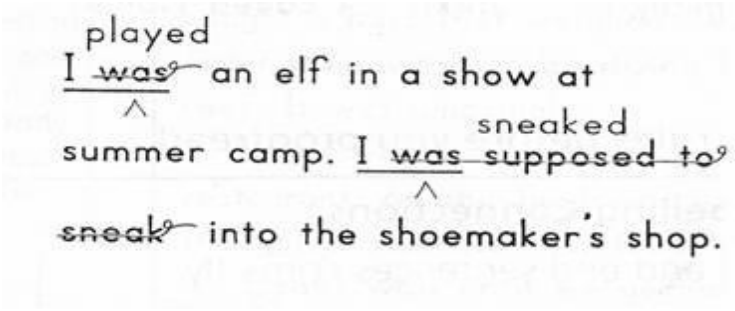
Omit proofreading and editing marks and use the "line number" method shown below.

The “line-number” method:

a. Under a cell 5 heading “Draft,” write the selection that includes print proofreading marks. Italicize the word(s) or phrase(s) affected by the proofreading mark(s). If the text contains italicized material, use an indicator that does not already appear in the text.
b. Insert a blank line.
c. List the changes to be made by line number. In cell 1, braille the line number (Line 1, etc.).

d. On the next line, state the change to be made using the word "delete:". Leave a blank space, then write the affected word(s).
e. On the next line, write what is to be done to the affected word(s) using the words "replace with:". Leave a blank space, then write the correct word(s).
f. Insert a blank line. Write the corrected sentence(s) under a cell 5 heading entitled "Corrected."

Example 7-1



Note: The underlining is not indicated.

First through third grades

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

g. The following paragraph is a suggested transcriber's note that would be placed on the Transcriber's Notes page in the Teacher's Reference Materials pages.

Print proofreading marks are not used in this braille edition. The original sentence(s) is (are) transcribed first, under the heading "Draft." Words or phrases that are crossed out in print are italicized in braille. This is followed by a list of the line numbers and the changes that need to be made within each line. Next the corrected sentence(s) is (are) transcribed under the heading "Corrected." Each sentence begins in cell 1.

Guideline 8: Activities to Omit

8.1 Fundamentals

8.1.1 Generally, activities in print are not omitted. However, there are times when activity omissions are necessary such as: pictures to be identified by name, a handwriting activity, lines or boxes depicting the shape of words.

8.1.2 Omitted activities are listed on the Teacher's Reference Materials page(s).

8.1.3 Daily worksheets are transcribed under the direction of the teacher of students with visual impairments.

8.1.4 Written descriptions of objects or pictures are not included in kindergarten material.

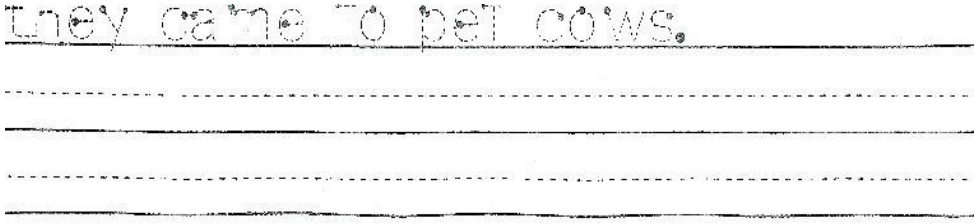
8.2 All Grades

8.2.1 All omissions are identified in a transcriber’s note at the point of use or on the Transcriber’s Notes page, if it occurs more than once. (*Braille Formats 2016*, Section 2.6.1)

Omit:

a. Activities that cannot be transcribed without providing the answer.
b. Handwriting activities.

Example 8-1



c. Stories told exclusively with pictures.
d. Modifications of the standard alphabet, such as pictures of sign language that have no braille equivalents.
e. Shape configurations in activities that may use boxes to show the shapes of words written in print.

(1) Kindergarten and first grade. Insert a hyphen for each missing letter of the word where the shape configuration would appear. For young or new readers,

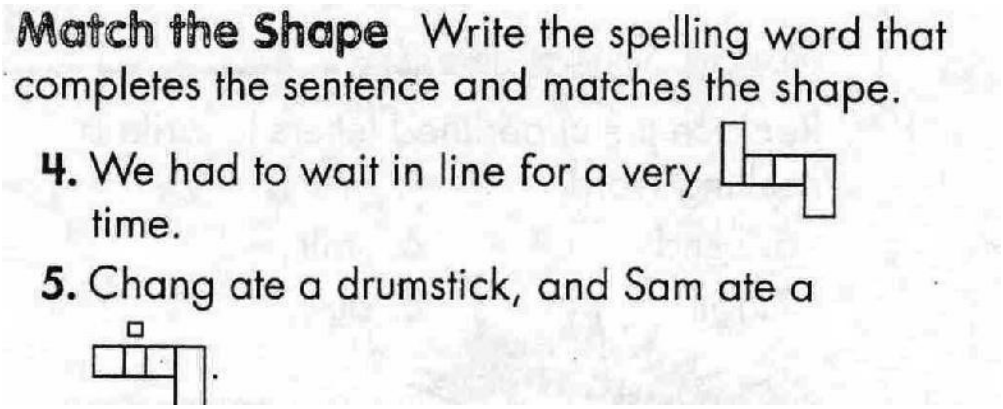
insert a space between the hyphens. Use a transcriber's note:

One hyphen for each letter.

(2) Second and third grades. Use unspaced hyphens, one hyphen for each missing letter of the word. Insert a transcriber's note:

One hyphen for each letter.

Example 8-2



Match the Shape Write the spelling word that completes the sentence and matches the shape.

4. We had to wait in line for a very ⠤⠤⠤⠤ time.

5. Chang ate a drumstick, and Sam ate a ⠤⠤⠤⠤.

Kindergarten and first grade

1 ⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠

2

3 ⠠⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠ ⠠ ⠠⠠⠠⠠

4

5 ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠ ⠠⠠ ⠠⠠⠠⠠

6

7 ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠ ⠠⠠⠠ ⠠ ⠠⠠ ⠠ ⠠ ⠠ ⠠ ⠠ ⠠

8

9 ⠠⠠

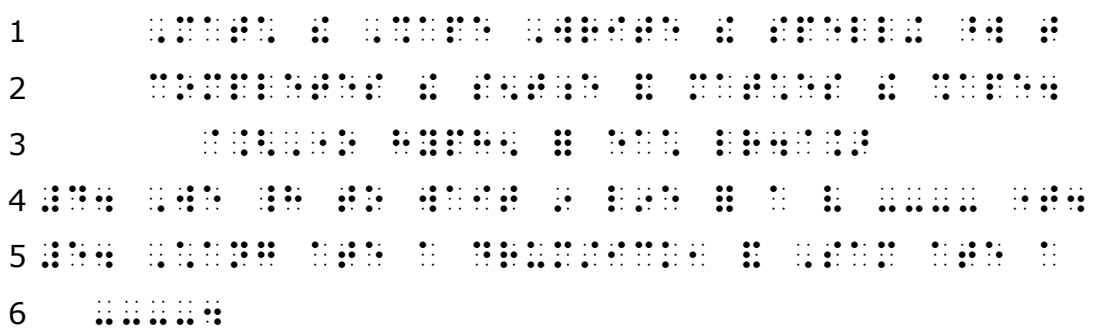
10

11 ⠠⠠ ⠠⠠⠠ ⠠⠠ ⠠ ⠠⠠⠠⠠⠠⠠ ⠠ ⠠⠠ ⠠⠠ ⠠

12

13 ⠠ ⠠ ⠠ ⠠⠠

Second and third grades



Guideline 9: Puzzles

9.1 Teacher's Reference Materials

The Teacher's Reference Materials page(s) should include a note regarding the omission of, or the format for, each type of puzzle in that volume. (*Braille Formats 2016*, Section 19). Listed below are suggested formats for different types of puzzles.

9.1.1 Kindergarten: double-space the following, unless otherwise stated.

a. Configuration boxes—treat as "fill in the blank." Do not draw shapes. Insert a hyphen for each missing letter of the word. (See ELMP Guideline 8.2.1.e.)
b. Word Search—single-space, do not use grade 1 symbol indicators, insert a space between each letter (*Braille Formats 2016*, Section 19.6).
c. Dot-to-Dot—follow print for the dot placement if possible. Create the puzzle with braille or preferably as a tactile graphic.
    (1) In braille, use dots 2356 to stand for each dot. Use the grade 1 passage indicator. (*Braille Formats 2016*, Section 19.6). Place the number or letter beside, below, or above the dot depending on the spacing between dots.
    (2) Use the number sign with regular or Nemeth numbers.
    (3) Do not use the grade one indicator with single-capitalized letters. The grade one indicator is required for uncapitalized letters.
    (4) When a puzzle is too large or complicated to replicate, but a dot-to-dot activity would be useful, use dots that represent a simpler shape. If the activity is omitted, state the omission on the transcriber's notes page.
d. Puzzle shapes for building vocabulary—list the uncontracted vocabulary words first, then repeat them inside a braille shape. The braille shape does not need to replicate the shape of the print puzzle. A tactile graphic made into a shape similar to the print can enclose the uncontracted braille words also. (*Braille Formats 2016*, Section 19.6.)

9.1.2 First through third grades: use single-spacing.

a. Crossword—follow *Braille Formats 2016*, Section 19.5.
b. Configuration boxes—see puzzle format above. (ELMP 9.1.1.a)
c. Word Search—see puzzle format in *Braille Formats 2016*, Section 19.6.
d. Dot-to-Dot—see puzzle format above. (ELMP 9.1.1.c)
e. Puzzle shapes for building vocabulary—see puzzle format above. (ELMP 9.1.1.d)

Guideline 10: Expendable (Consumable) Material

10.1 Expendable Materials

Expendable materials are those materials requiring the student to put answers directly onto the transcribed page. (*Braille Formats 2016*, Section 1.1.9 and Section 10.1.3)

10.1.1 General Guidelines

a. Emboss these materials as single-sided.
b. Begin each activity on a new braille page.
c. Name and Date may be omitted or retained for different purposes:

   (1) Name and Date are omitted if a transcription is intended for several braille readers and would be registered with a central agency.

   or

   (2) Retain Name and Date and other items, if requested by sponsoring agency, listing them vertically at the margin.

   or

   (3) When transcribing homework activities for an individual student, include the Name and Date. This will remind the students to place their name and date on all answer sheets.

d. Double-space lines in which the student may be drawing a circle, marking an area of a sentence, or filling in a blank.
e. Do not transcribe or score the write-on lines that are shown in print.
f. Leave enough blank space, or lines, for the insertion of the answer with braille writer or slate and stylus. It takes skill to line up a braille writer to insert an answer. Extra blank space is needed.
g. Leave plenty of space in or following tables and charts for the insertion of the answer.
h. Omit lines, dashes, circles, boxes, etc., indicating a required answer, before or after questions. (*Braille Formats 2016*, Section 10.5.1)

i. Use the underscore (⠸⠤) to represent a print blank in a sentence or question. (See *Rules of UEB 2013*, Section 7.2.)

Guideline 11: Storybooks or Trade Books

11.1 General Guidelines

Follow print format as much as possible. There are several methods for transcribing story books.

11.1.1 For earlier books (pre-kindergarten, kindergarten, first grade), which may have only one to four lines of simple text on a page, half sheets (e.g., 8½" x 5½") of paper could be used. Paper could also be sized to match the print book. Recommended size is no larger than 8½" x 11", portrait or landscape.

11.1.2 Braille in early literacy books may be embossed on transparent adhesive label paper that can be attached to the print page. This allows a print reader to read along with the braille reader in the same book.

11.1.3 Braille may also be embossed on transparent, or semi-transparent, pages that are inserted and bound into the print copy. The braille should face the print page when bound.

11.1.4 Start each new print page on a new braille page.

11.1.5 Always include the print page numbers when they are shown in print.

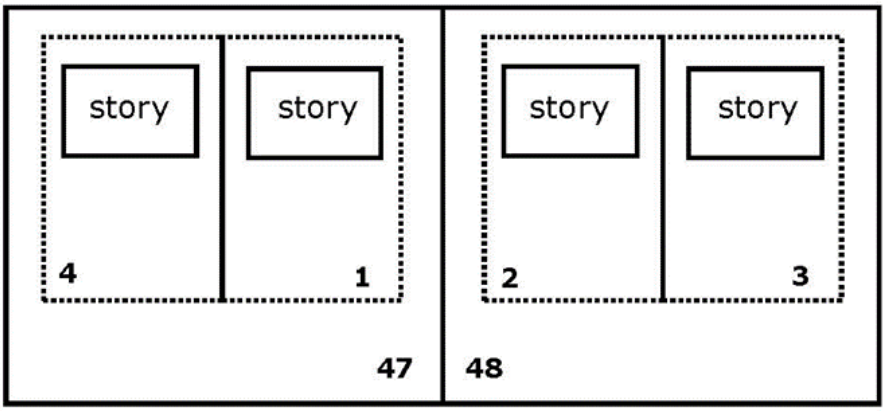
Guideline 12: Mini-Books

12.1 Mini-Books

Frequently, within workbooks, activities for a specific type of problem or chapter extend over several pages. When activities for a new problem or chapter begin on a new print page, the braille transcription should do the same.

12.2 Short Story Mini-Books within Workbooks or Activity Books

12.2.1 Workbooks may include mini-books with their own page numbers. The print reader would remove these pages from the workbook and fold them into a booklet.



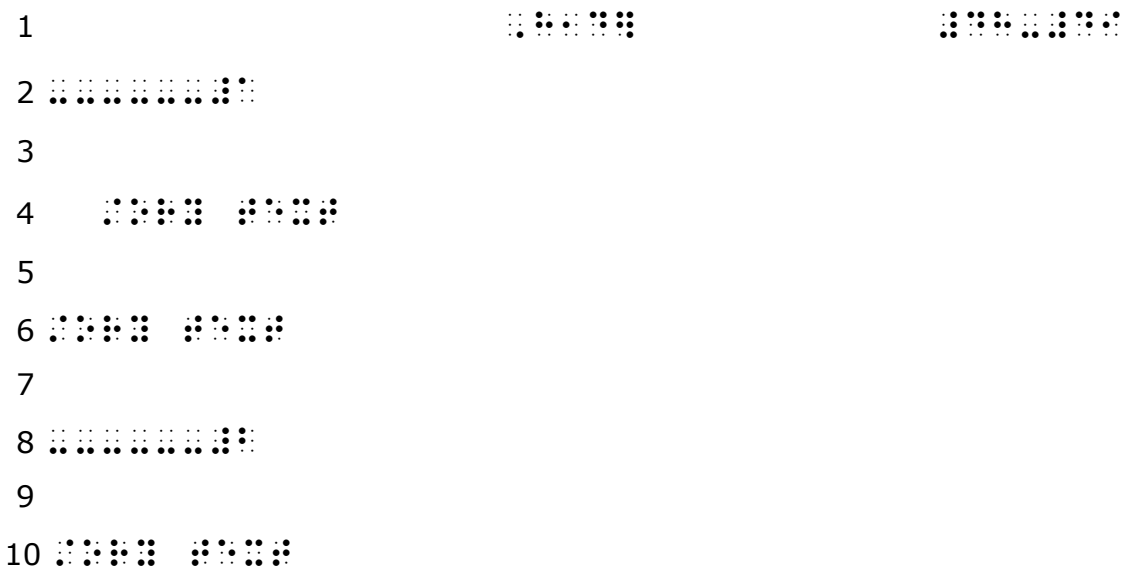
12.2.2 Mini-books are transcribed in the order that the pages will be read.

a. Include page numeration for the workbook and the mini-books in the transcription. The workbook numeration will follow the format used for material printed across facing pages. (*Braille Formats 2016*, Section 1.12)
b. Combine print page numbers (e.g., 48-49), and place to end at the right margin, in cell 40. If lettered continuation pages are required, they must also carry the combined print page numbers (e.g., a48-49) and so forth. (*Braille Formats 2016*, Section 1.12.1)
c. Include the mini-book page numbers and transcribe them beginning at the left margin, in cell 1, with six hyphens followed by the mini-book page number.

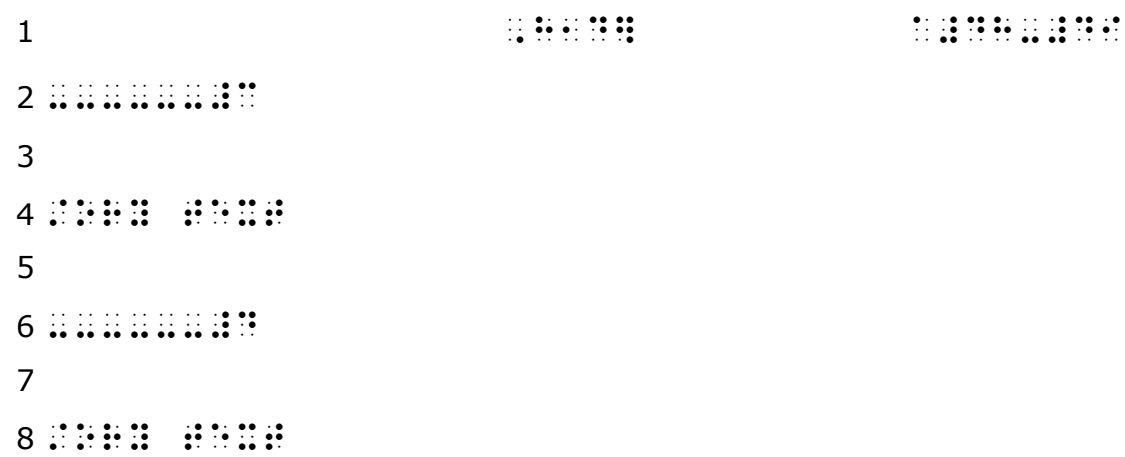
12.2.3 If the mini-book is distributed as separate worksheets for the student to cut and fold, use the same format for transcribing a trade book. Only the mini-book page numbers would be included and the six-hyphen numbering system is not used.

Example 12-1

Braille (Double-spaced)



page break



Codebooks and Guidelines

Unified English Braille (UEB)

The Rules of Unified English Braille, Second Edition 2013.

UEB Guidelines for Technical Materials 2014. Available on the UEB page of the International Council on English Braille (ICEB) website, www.iceb.org

Braille Formats

Braille Formats: Principles of Print-to-Braille Transcription, 2016. Available at www.brailleauthority.org. Hard copy available at APH, www.aph.org

Foreign Language

Provisional Guidance for Transcribing Foreign Language Material in UEB. Available as PDF and BRF at www.brailleauthority.org

Mathematics and Science Braille

UEB Guidelines for Technical Materials 2014. Available at www.iceb.org

Nemeth Code for Mathematics & Science Notation, 1972 Revision. Available at www.brailleauthority.org. Hard copy available at APH, www.aph.org.

Guidance for Transcription using the Nemeth Code within UEB Contexts. Available at www.brailleauthority.org

Nemeth Updates 2007-2016. Available at www.brailleauthority.org

Tactile Graphics

Guidelines and Standards for Tactile Graphics, 2010. Available at www.brailleauthority.org. Hard copy available at APH, www.aph.org

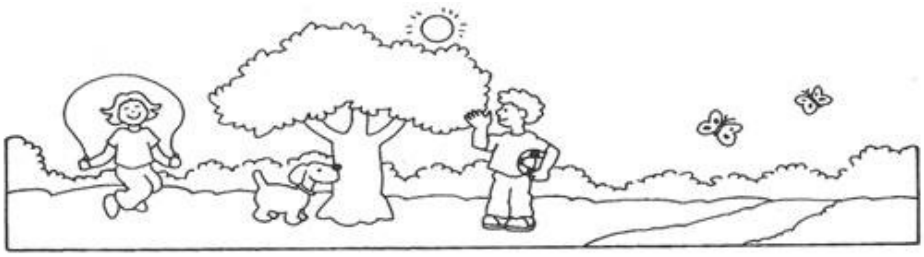
Guidelines and Standards for Tactile Graphics, 2010, Supplement. Available at APH, www.aph.org

Booklet of Examples

These literary examples are brailled using guidelines found in:

BANA Guidelines for the Transcription of Early Educational Materials from Print to Braille
The Rules of Unified English Braille, Second Edition 2013
Braille Formats: Principles of Print-to-Braille Transcription, 2016

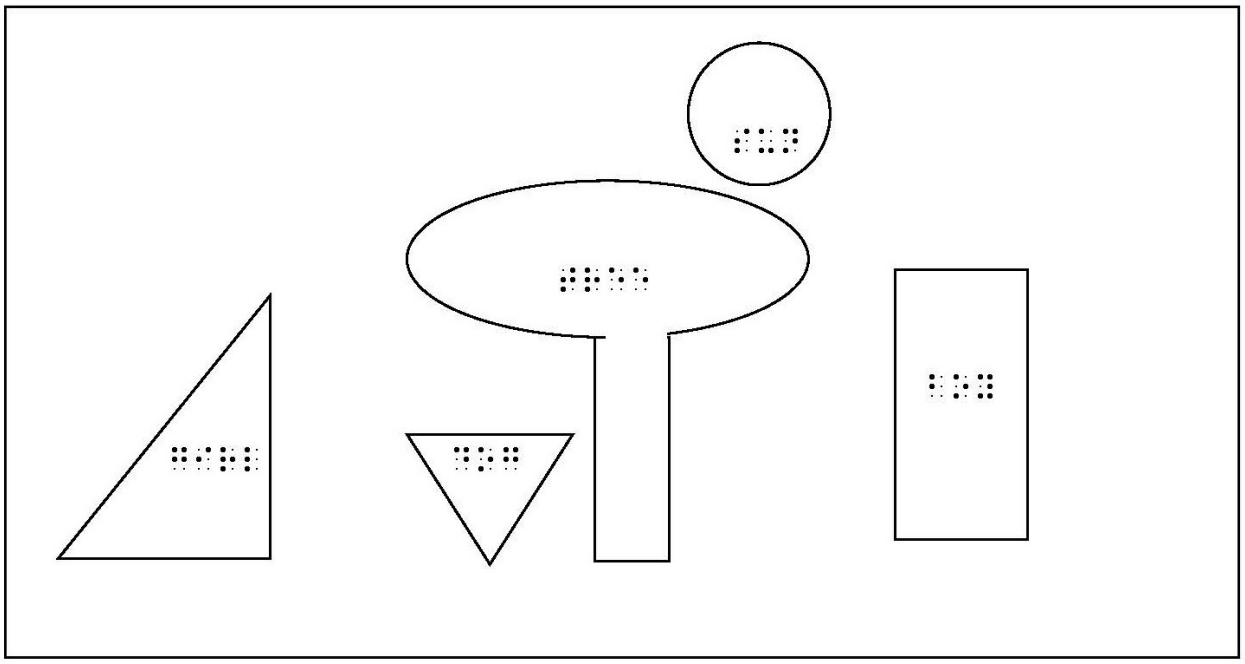
Example 1

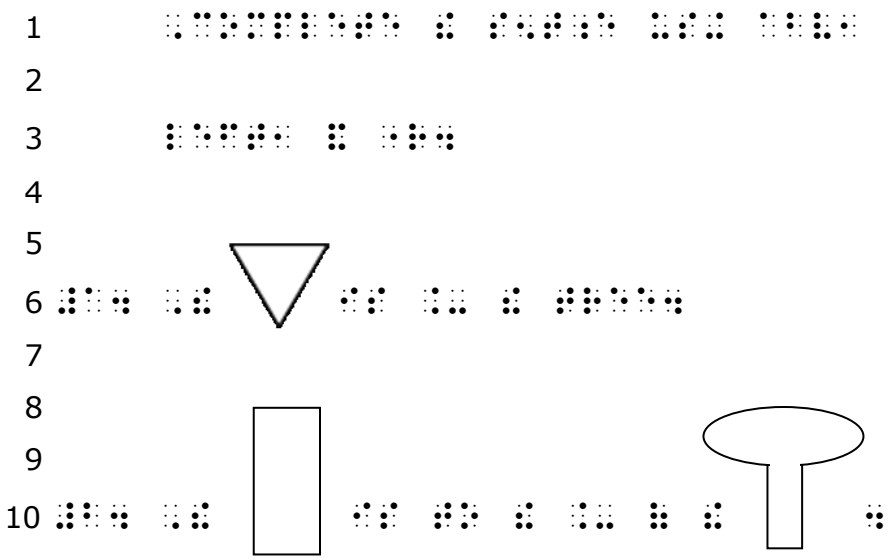


Complete the sentence using above, below, between, left, and right.

1. The is _____ the tree.

2. The is to the _____ of the .

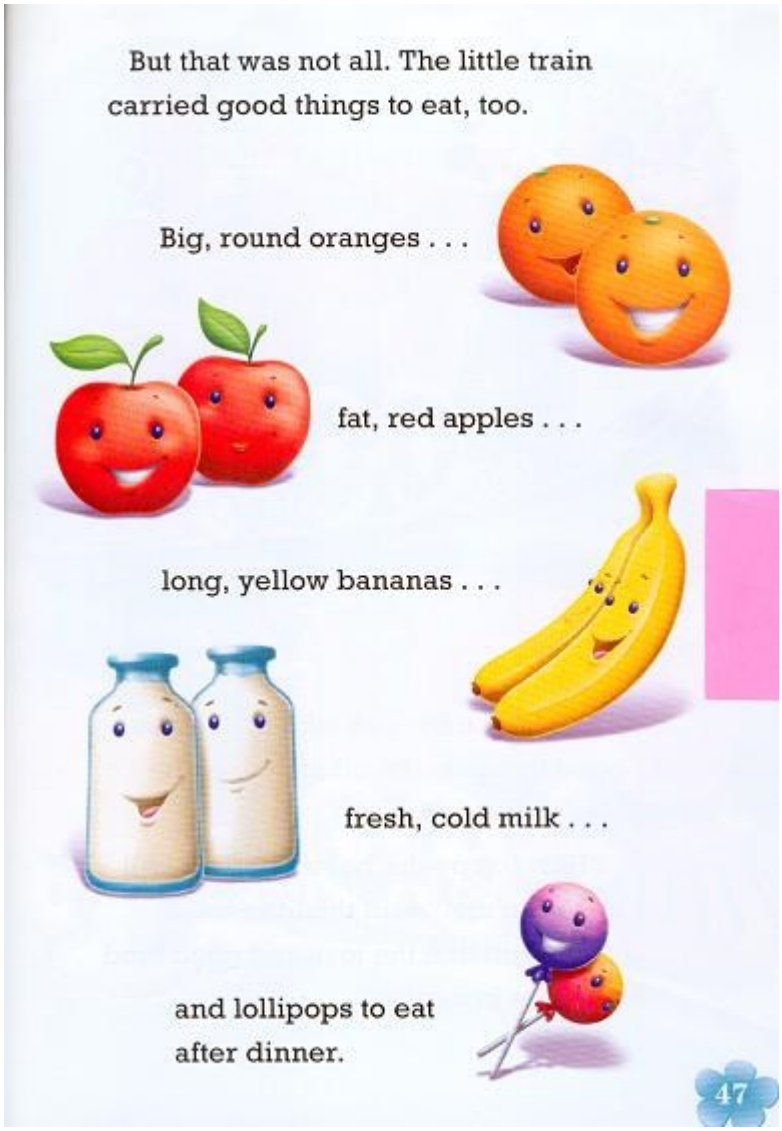




The shapes in this example are solid, glued on, with the braille on top of the shape. The picture is in a box. Only shapes, not words, are used in the questions in print.

The exercise is double-spaced as this is a kindergarten or first grade worksheet.

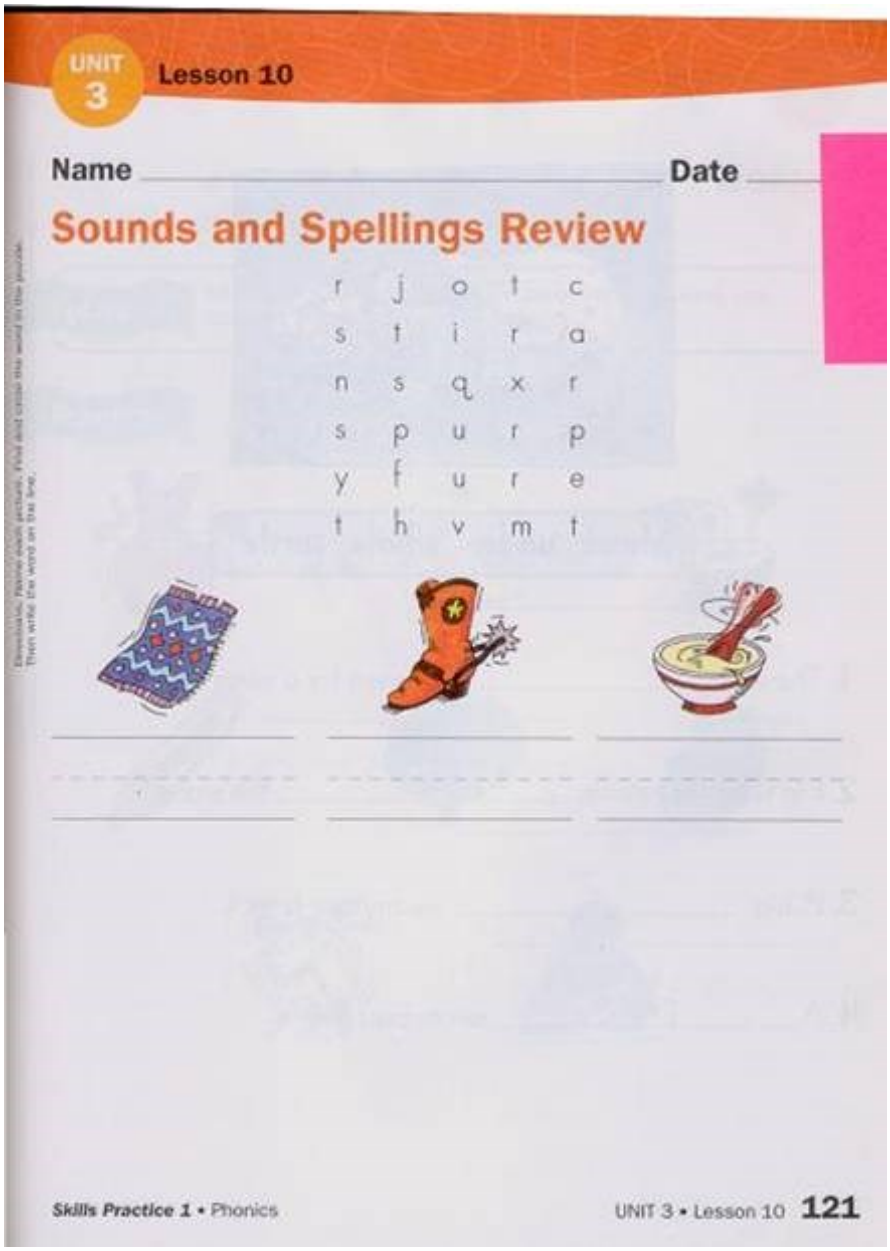
Example 2


But that was not all. The little train carried good things to eat, too.
Big, round oranges . . .
fat, red apples . . .
long, yellow bananas . . .
fresh, cold milk . . .
and lollipops to eat after dinner.
47

Double-spaced for first grade.

Pictures were not necessary because the text provided the necessary information.

Example 3



UNIT 3 Lesson 10

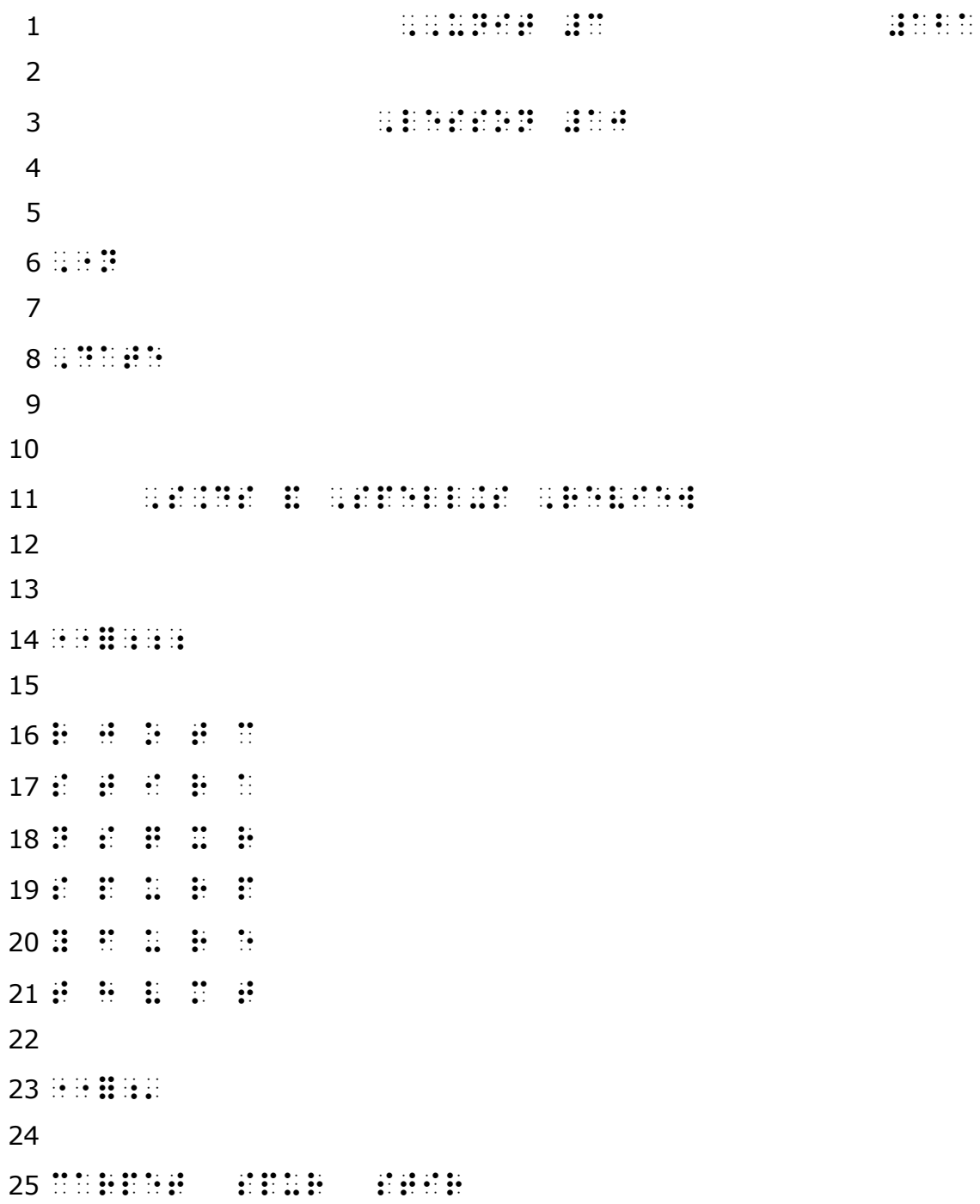
Name _____ Date _____

Sounds and Spellings Review

r	j	o	t	c
s	t	i	r	a
n	s	q	x	r
s	p	u	r	p
y	f	u	r	e
t	h	v	m	t

Skills Practice 1 • Phonics

UNIT 3 • Lesson 10 121



Double-spaced for first grade.

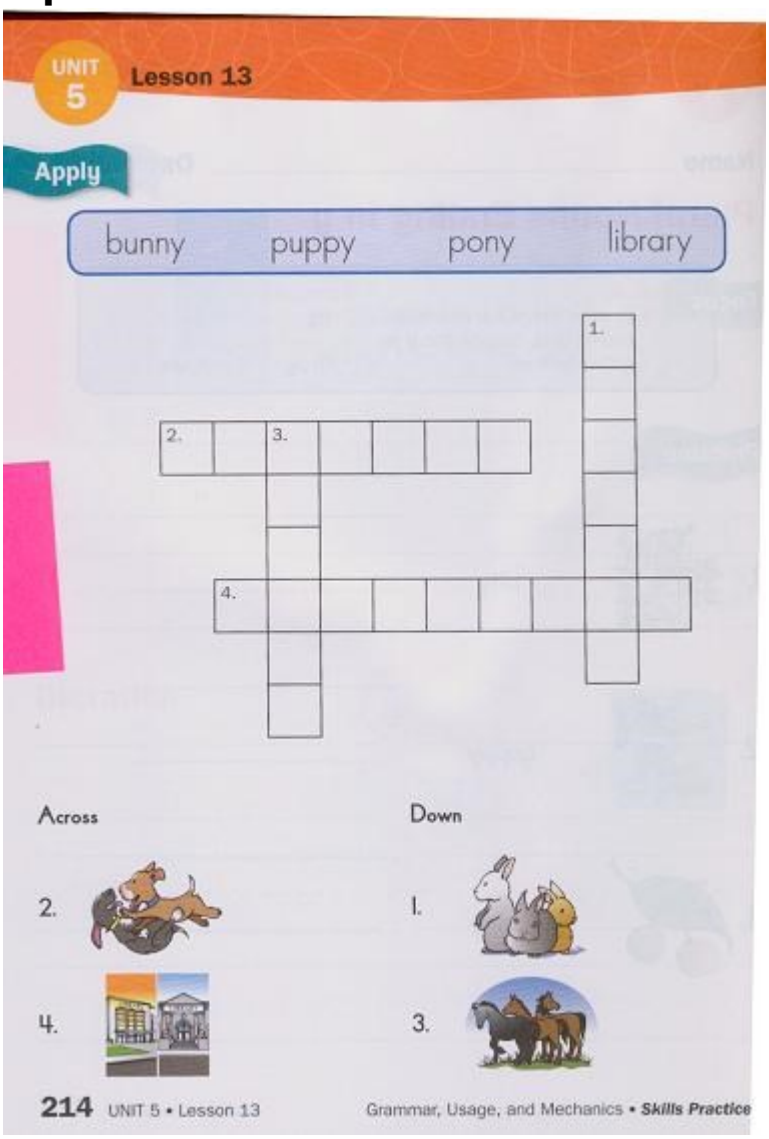
Only one blank line is used between "Unit 3" and "Lesson 10" because it is a two-line centered heading unit.

The Word Search puzzle is single spaced. (See *Braille Formats 2016*, Section 19.6.1.d).

The pictures are named because they would not be giving the student the answers. They are merely to tell the student what words to look for. (See *Braille Formats 2016*, Section 10.11.3)

The spelling words are not contracted so they will look the same as the word within the puzzle.

Example 4



UNIT 5 Lesson 13

Apply

bunny puppy pony library

Across

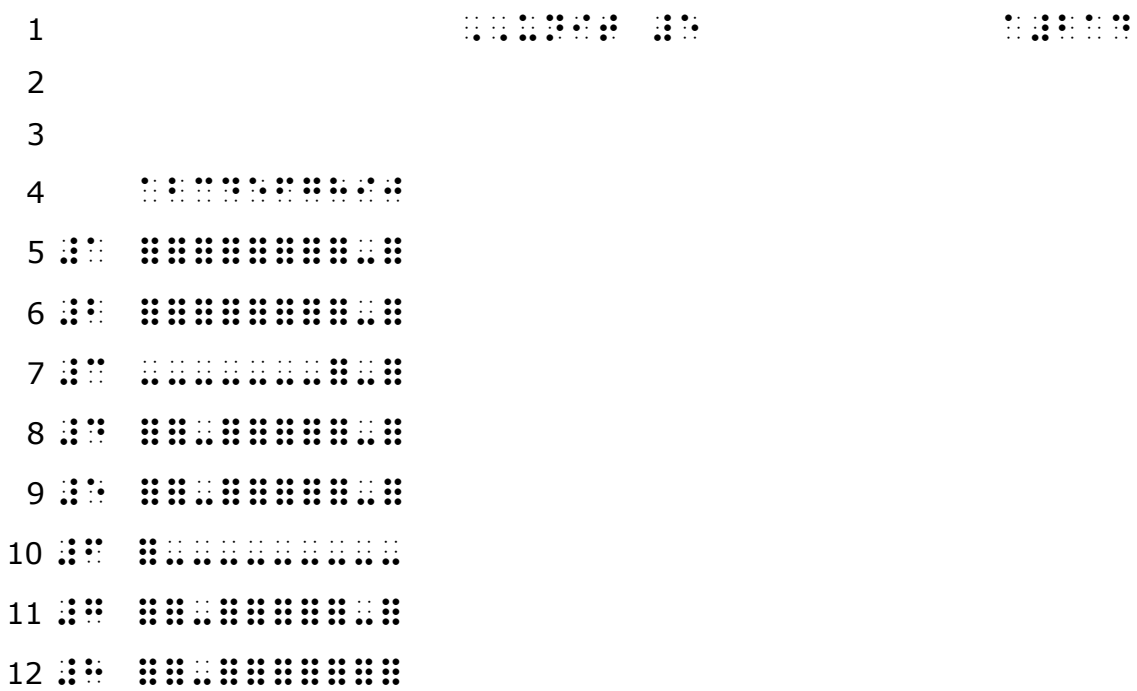
2.

4.

Down

1.

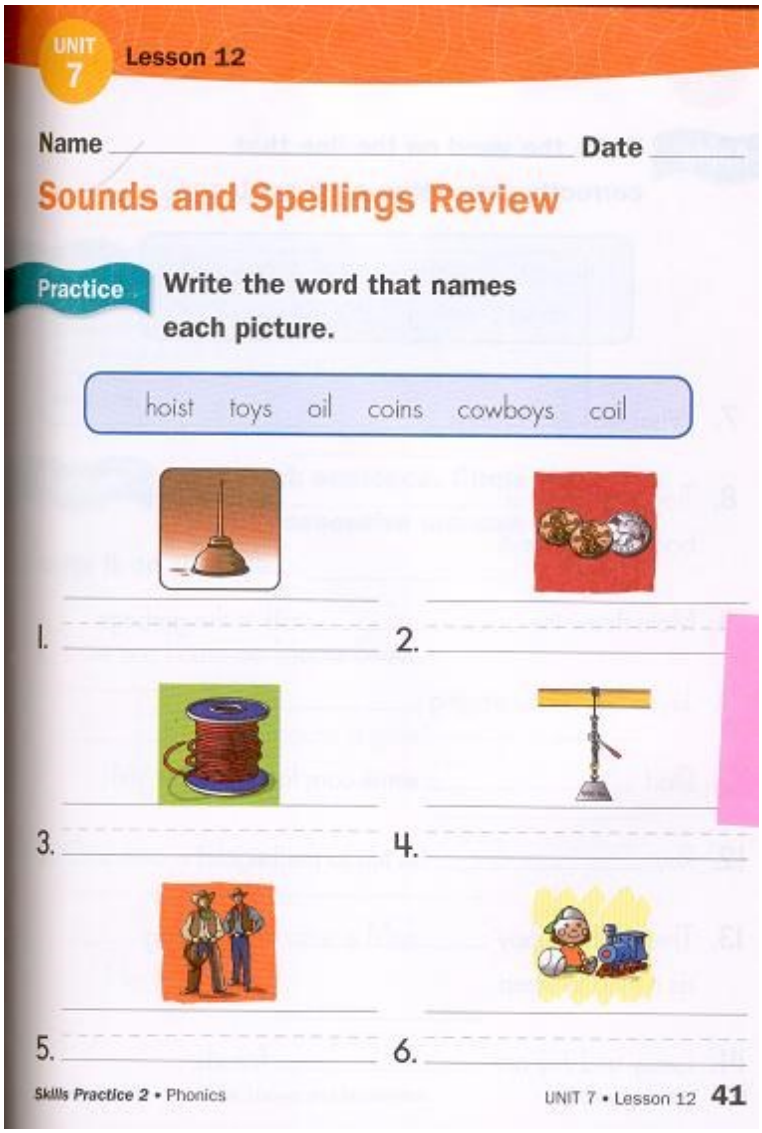
3.



This example is double-spaced for first grade. The format used for the crossword puzzle is explained in a transcriber's note that needs to be placed in the Teacher's Reference Materials. (See *Braille Formats 2016*, Section 19.5)

The crossword grid (puzzle) is single spaced. The description of the pictures and the puzzle would not fit on the same page. The puzzle and the list of descriptions could be brailled on facing pages.

Example 5



UNIT 7 Lesson 12

Name _____ Date _____

Sounds and Spellings Review

Practice Write the word that names each picture.

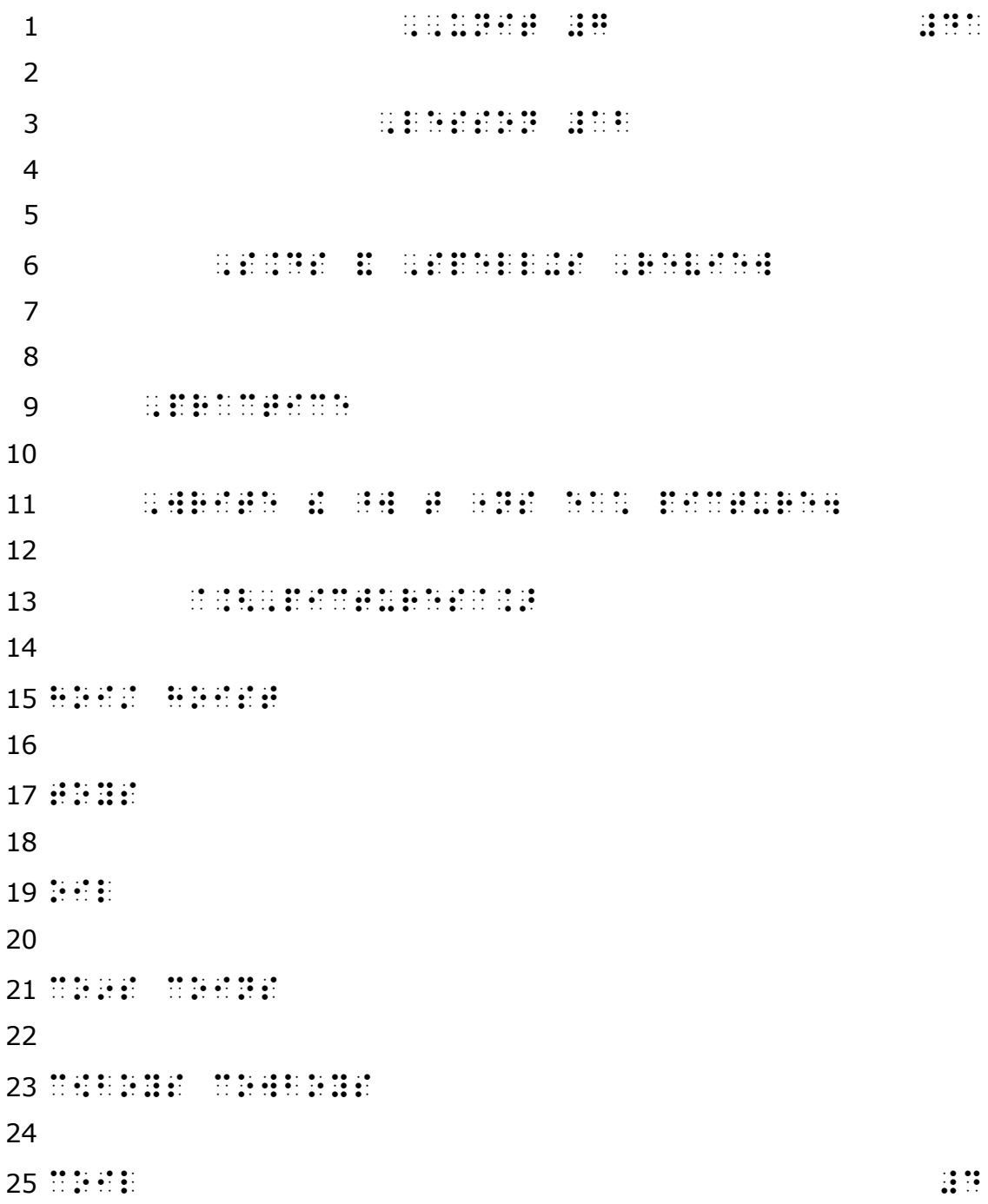
hoist toys oil coins cowboys coil

1. _____ 2. _____

3. _____ 4. _____

5. _____ 6. _____

Skills Practice 2 • Phonics UNIT 7 • Lesson 12 41



Only one blank line is used between "Unit 7" and "Lesson 12" because it is a two-line centered heading unit.

Pictures could not be named since that would give the answer, and descriptions of the pictures may involve wording beyond this first grade level. The transcriber's note "Pictures" indicates pictures are shown in print.

The words are shown as they will be read first and then in uncontracted braille as this is a spelling activity.

The question numbers would be brailled, double spaced, on the next braille page. The write-on lines are omitted.

First Grade Mathematics Examples
UEB Math/Science

These mathematics examples are brailled using guidelines found in:

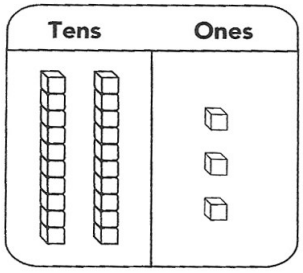
BANA Guidelines for the Transcription of Early Educational Materials from Print to Braille
The Rules of Unified English Braille, Second Edition 2013
Braille Formats: Principles of Print-to-Braille Transcription, 2016
Unified English Braille Guidelines for Technical Material, 2014
Guidelines and Standards for Tactile Graphics, 2010

Math Example 1

Name _____ Date _____ | Homework

Read and Write Numbers to 50

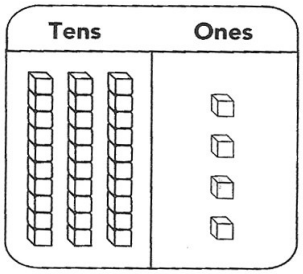
Show the number as tens and ones.



2 tens 3 ones 23
twenty-three

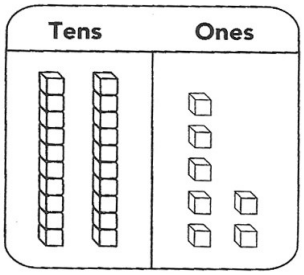
Write the number.

1.



____ tens ____ ones ____
thirty-four

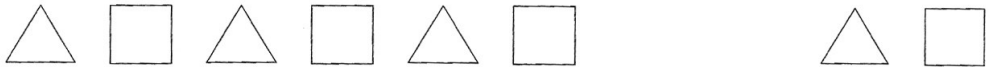
2.



____ tens ____ ones ____
twenty-seven

Spiral Review (Chapter 1, Lesson 5)

Circle the picture that comes next in the pattern.

3. 

4.

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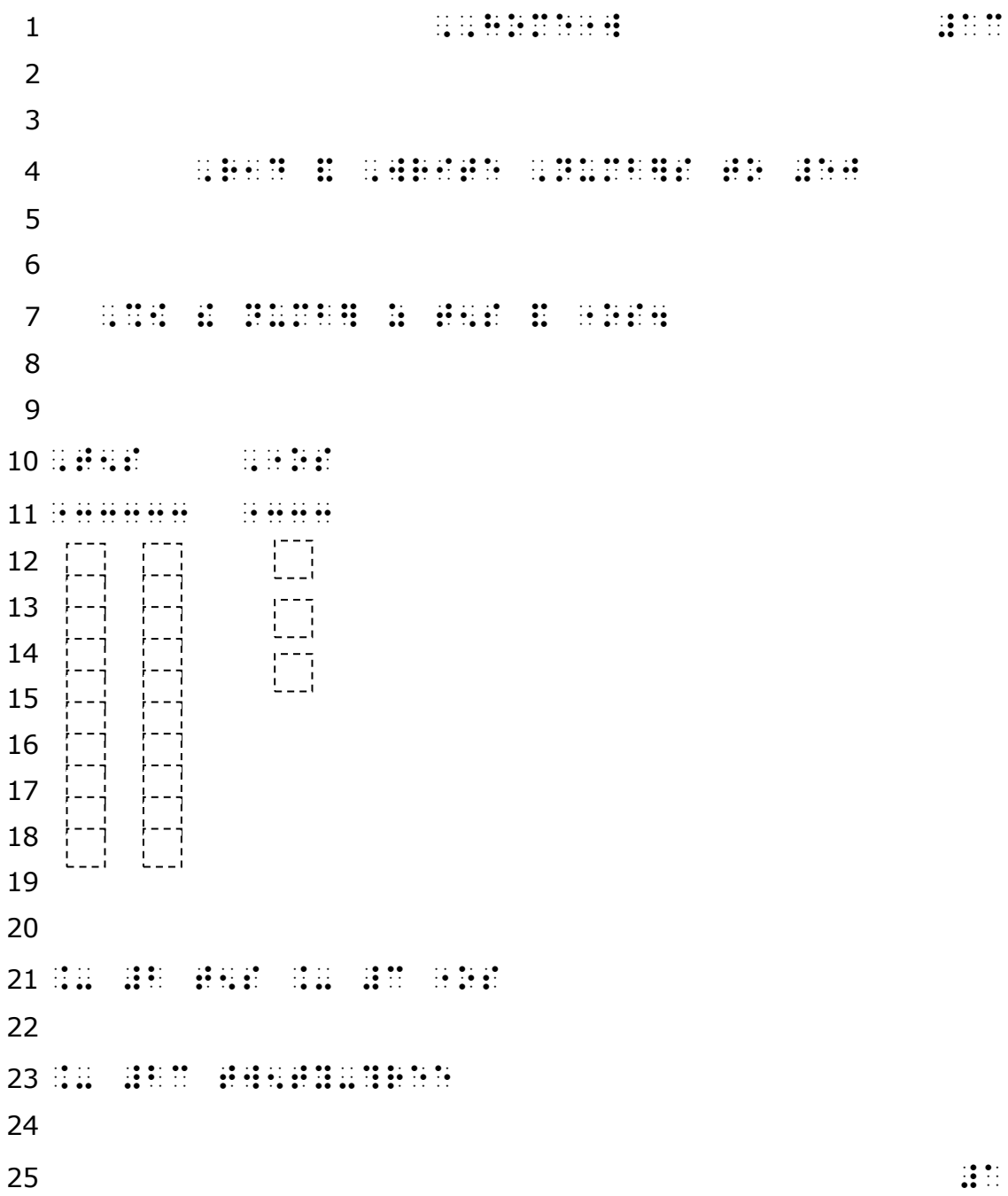
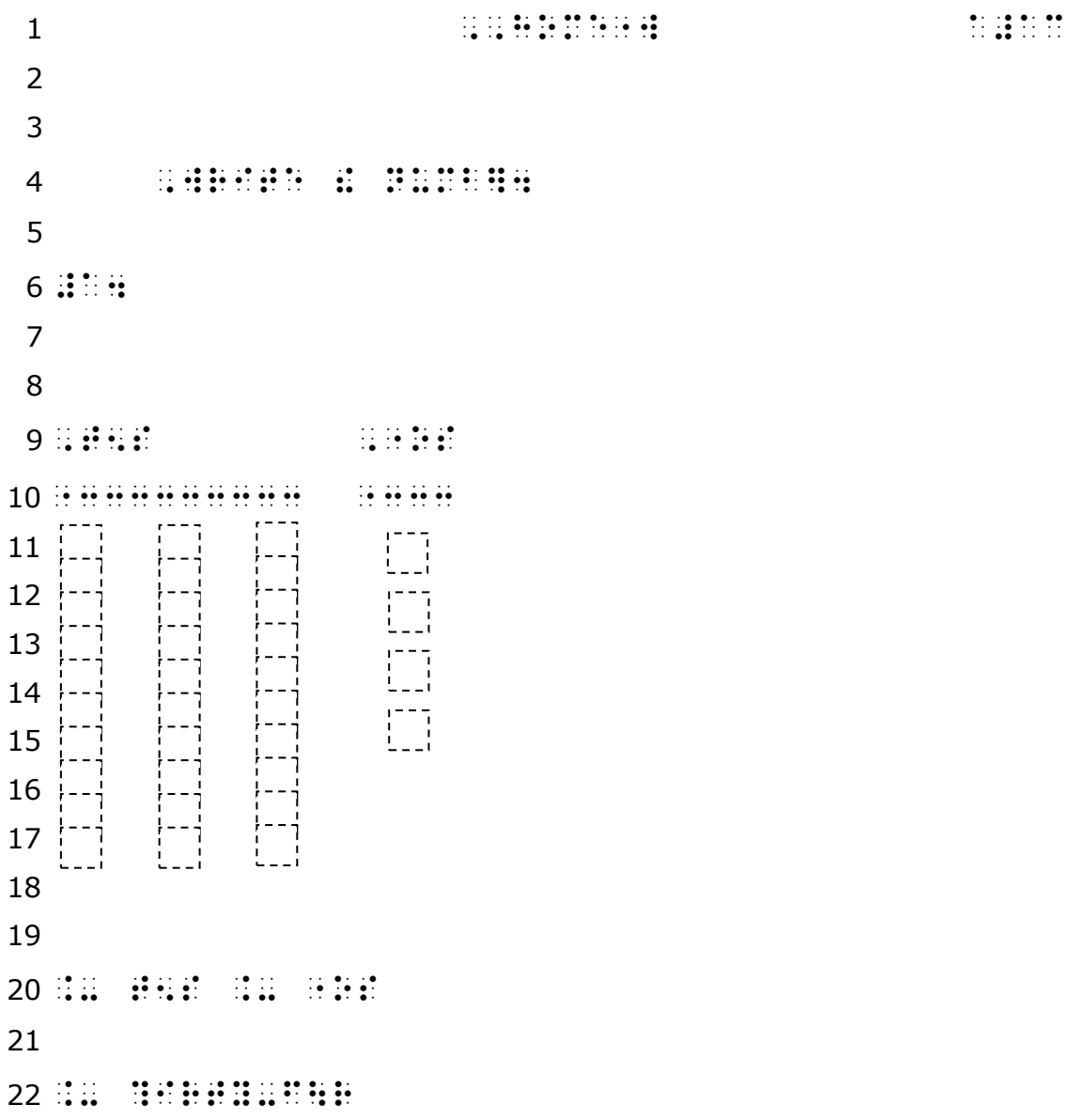


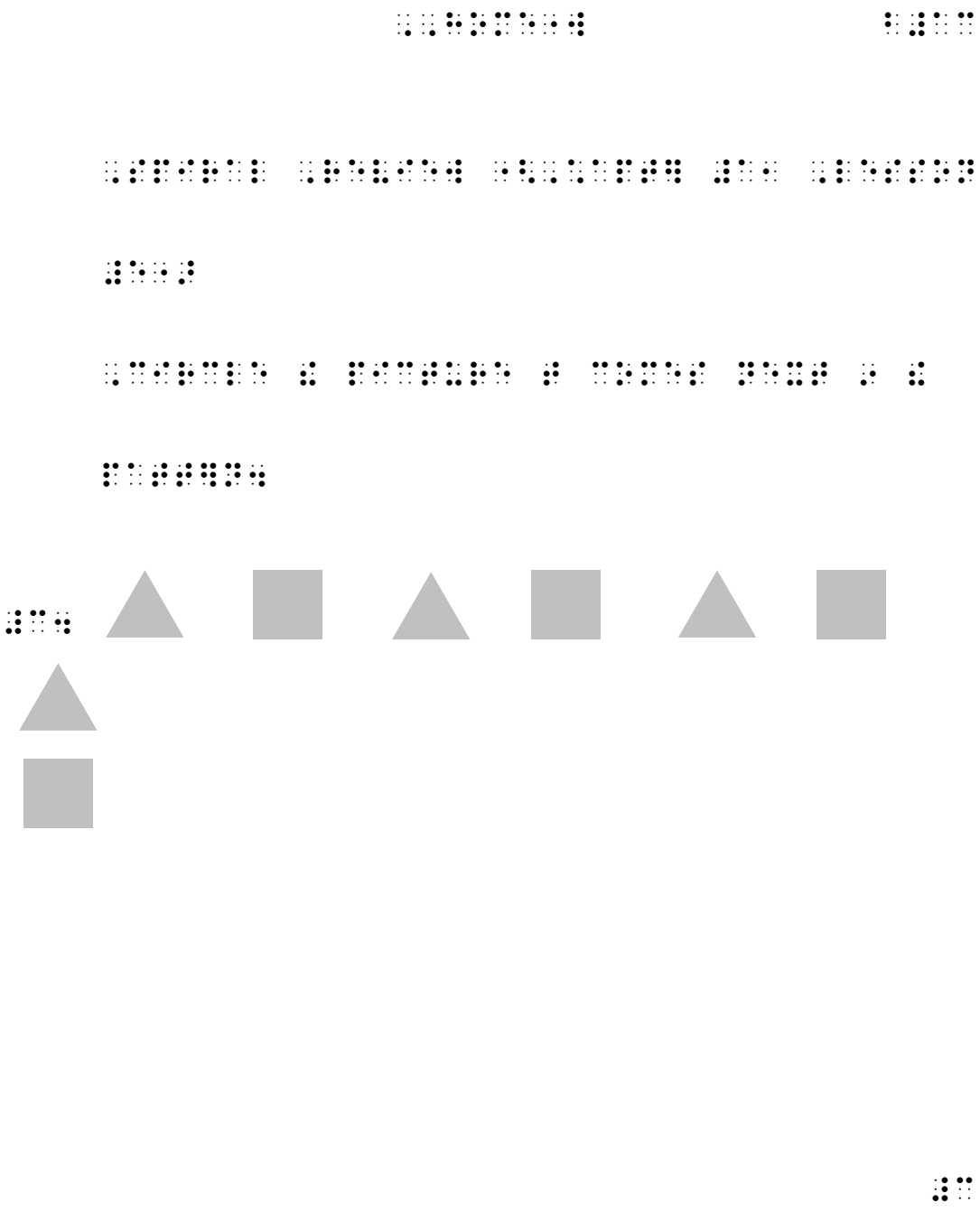
This is a first grade worksheet. It is double-spaced.

Two blank lines are required above and below centered heading.

Include the following transcriber's note on the Transcriber's Notes page and in the Teacher's Reference Materials:

> In the print example the answers are shown in highlighted type. In Braille the example answers are inserted after the underscore and before the number word.





The pattern shapes are solid and glued on, or created as a shaded raised image. The *Guidelines and Standards for Tactile Graphics 2010*, Unit 11.2.1, indicates that solid shapes are the easiest to read.

Math Example 2

Name _____ Date _____

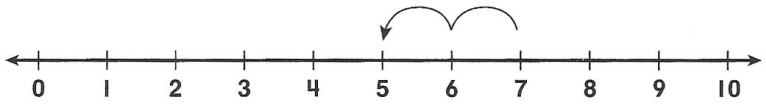
Chapter 8, Lesson 2
Homework

Use a Number Line to Subtract

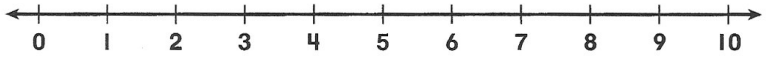
Find $7 - 2$.

You can use a number line to subtract.

Start at 7. Count back 2.



You end on 5. $7 - 2 = 5$



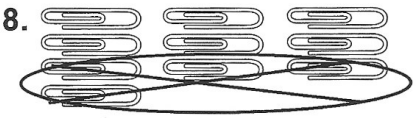
Use the number line to find the difference.

1. $6 - 3 =$ ____ 2. $4 - 2 =$ ____ 3. $7 - 1 =$ ____

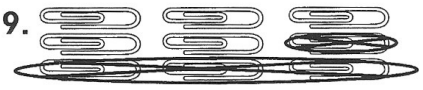
4. $\begin{array}{r} 5 \\ -2 \\ \hline \end{array}$ 5. $\begin{array}{r} 8 \\ -2 \\ \hline \end{array}$ 6. $\begin{array}{r} 4 \\ -1 \\ \hline \end{array}$ 7. $\begin{array}{r} 9 \\ -3 \\ \hline \end{array}$

Spiral Review (Chapter 7, Lesson 2)

Write the subtraction sentence.

8. 

_____ ⊖ _____ = _____

9. 

_____ ⊖ _____ = _____

10. Austin has 10 erasers. He gives 7 of them to his friends. How many erasers does Austin have now?

_____ ○ _____ ○ _____ erasers

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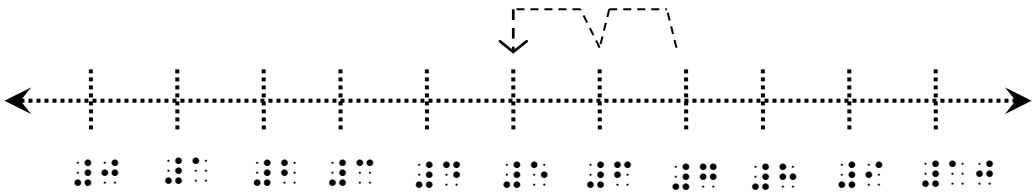
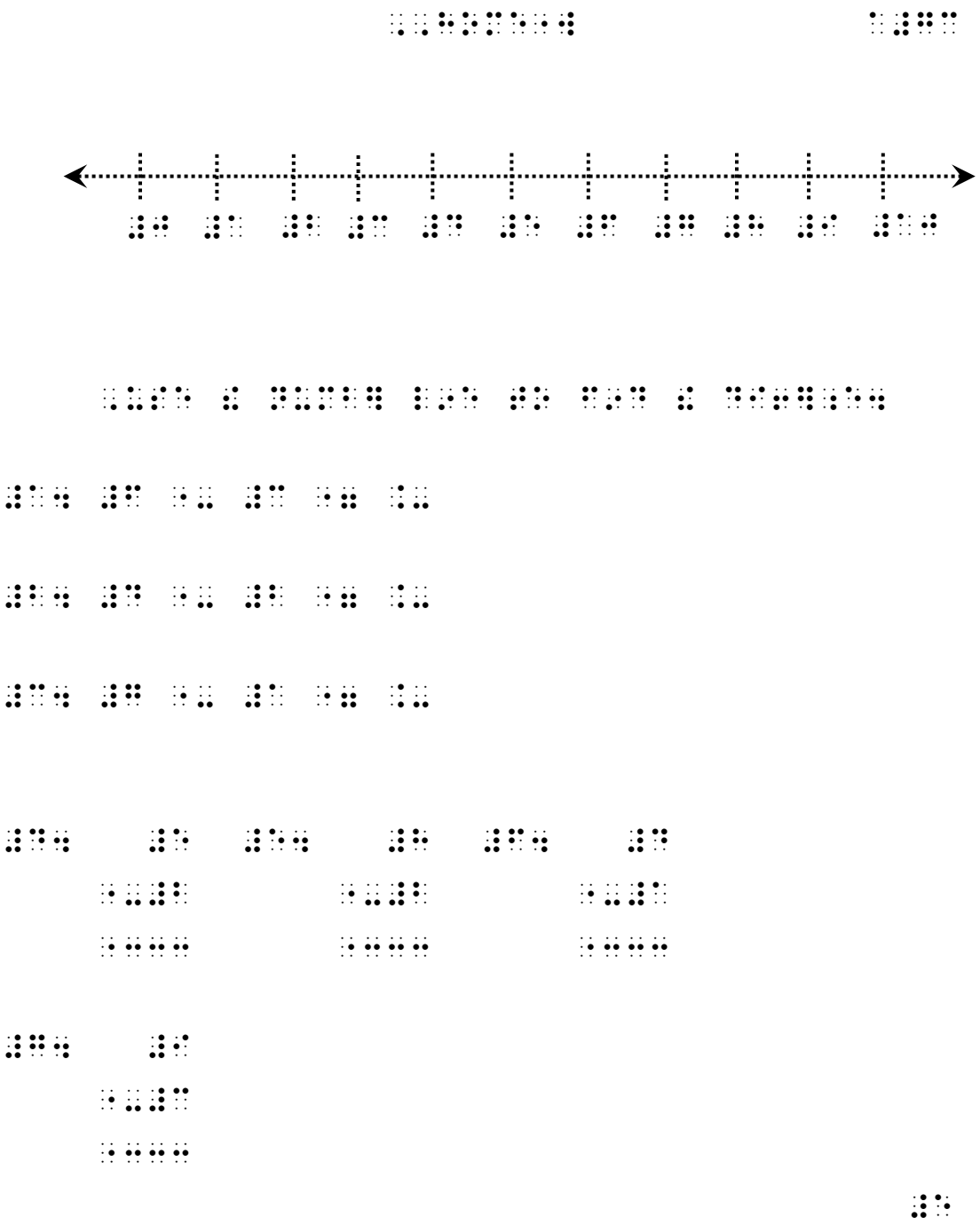
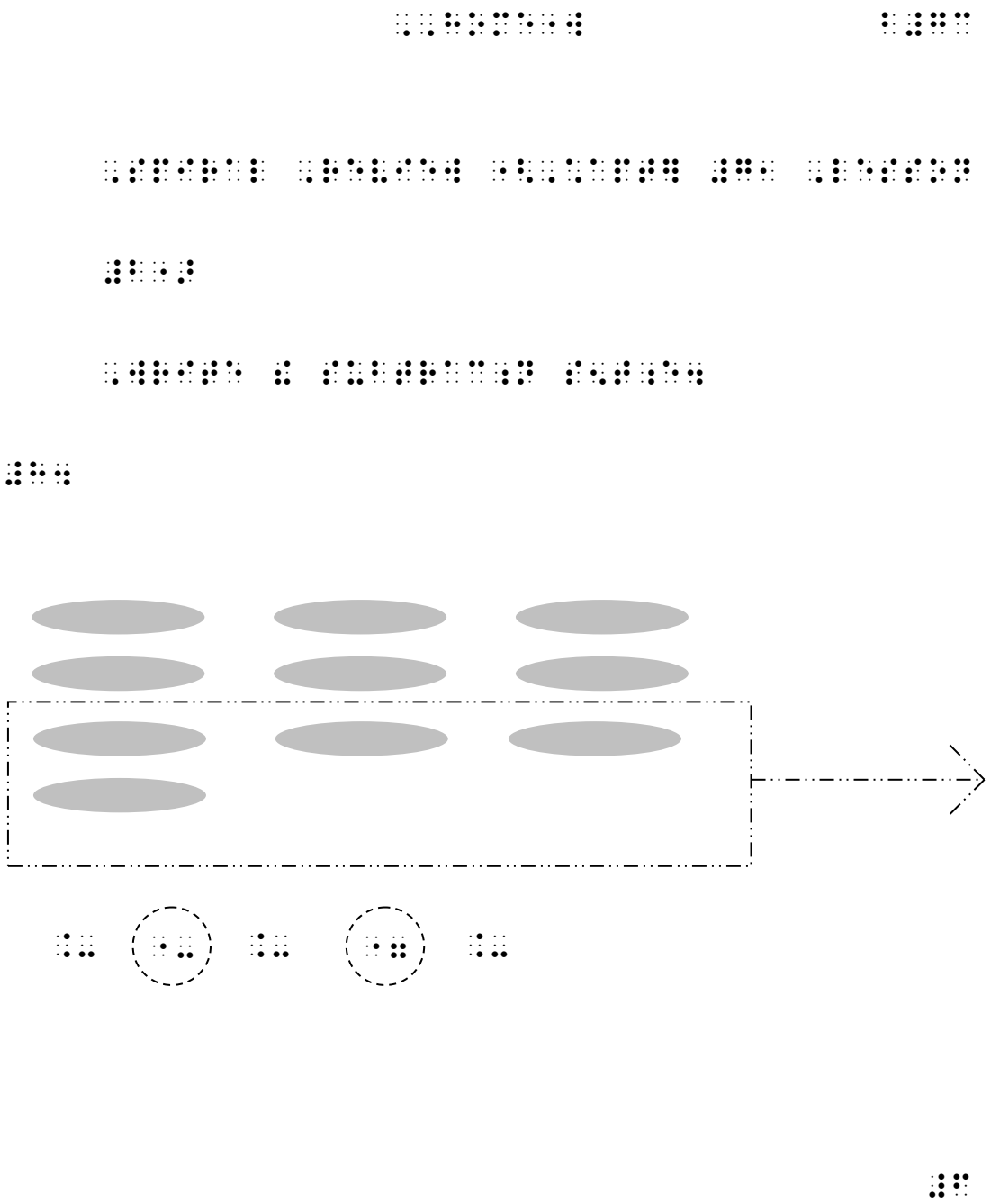


The number line is drawn for first through third grades. (*Guidelines and Standards for Tactile Graphics 2010*, Unit 6.5.1.12). The counting arrow is straight rather than curved.

Two blank lines are left between the graphic and text.

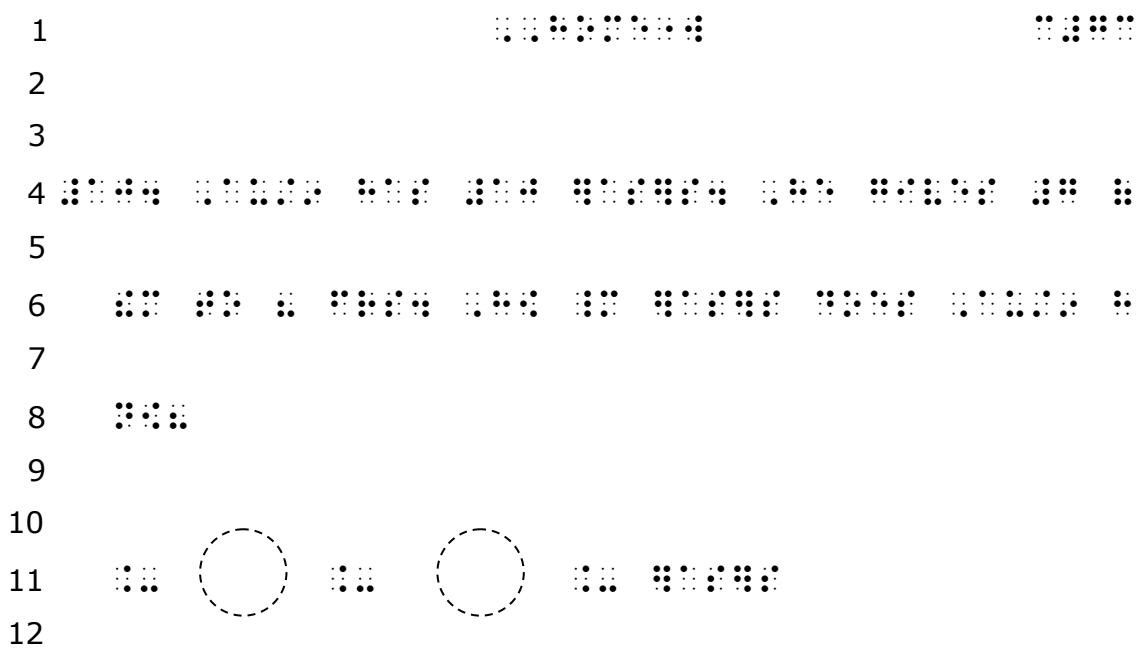


Draw the number line. Spatial problems are not double spaced within each problem.



The shapes are solid, not outlined.

A raised line is drawn around the part that is taken away. Raised line circles are spurred around the minus sign and equal sign just as in print.



Math Example 3

Name _____ Date _____ | Chapter 8, Lesson 3 Homework

Use Addition to Subtract

You can use a related addition fact to check your subtraction.

Subtract. Check by adding.

$$\begin{array}{r} 9 \\ -\,5 \\ \hline 4 \end{array} \qquad \begin{array}{r} 4 \\ +\,5 \\ \hline 9 \end{array}$$

Subtract. Check by adding.

1. $\begin{array}{r} 9 \\ -\,7 \\ \hline \end{array}$ $\begin{array}{r} \square \\ +\,\square \\ \hline \square \end{array}$

2. $\begin{array}{r} 6 \\ -\,3 \\ \hline \end{array}$ $\begin{array}{r} \square \\ +\,\square \\ \hline \square \end{array}$

3. $\begin{array}{r} 7 \\ -\,3 \\ \hline \end{array}$ $\begin{array}{r} \square \\ +\,\square \\ \hline \square \end{array}$

4. $\begin{array}{r} 8 \\ -\,4 \\ \hline \end{array}$ $\begin{array}{r} \square \\ +\,\square \\ \hline \square \end{array}$

Spiral Review (Chapter 7, Lesson 3)

Write the difference.

5. $6 - 2 =$ ____

6. $8 - 3 =$ ____

7. Luis has 3 soccer balls. He gives 1 to a friend. How many soccer balls does he have now?

_____ − _____ = _____ $\begin{array}{r} \square \\ -\,\square \\ \hline \square \end{array}$

Homework 75

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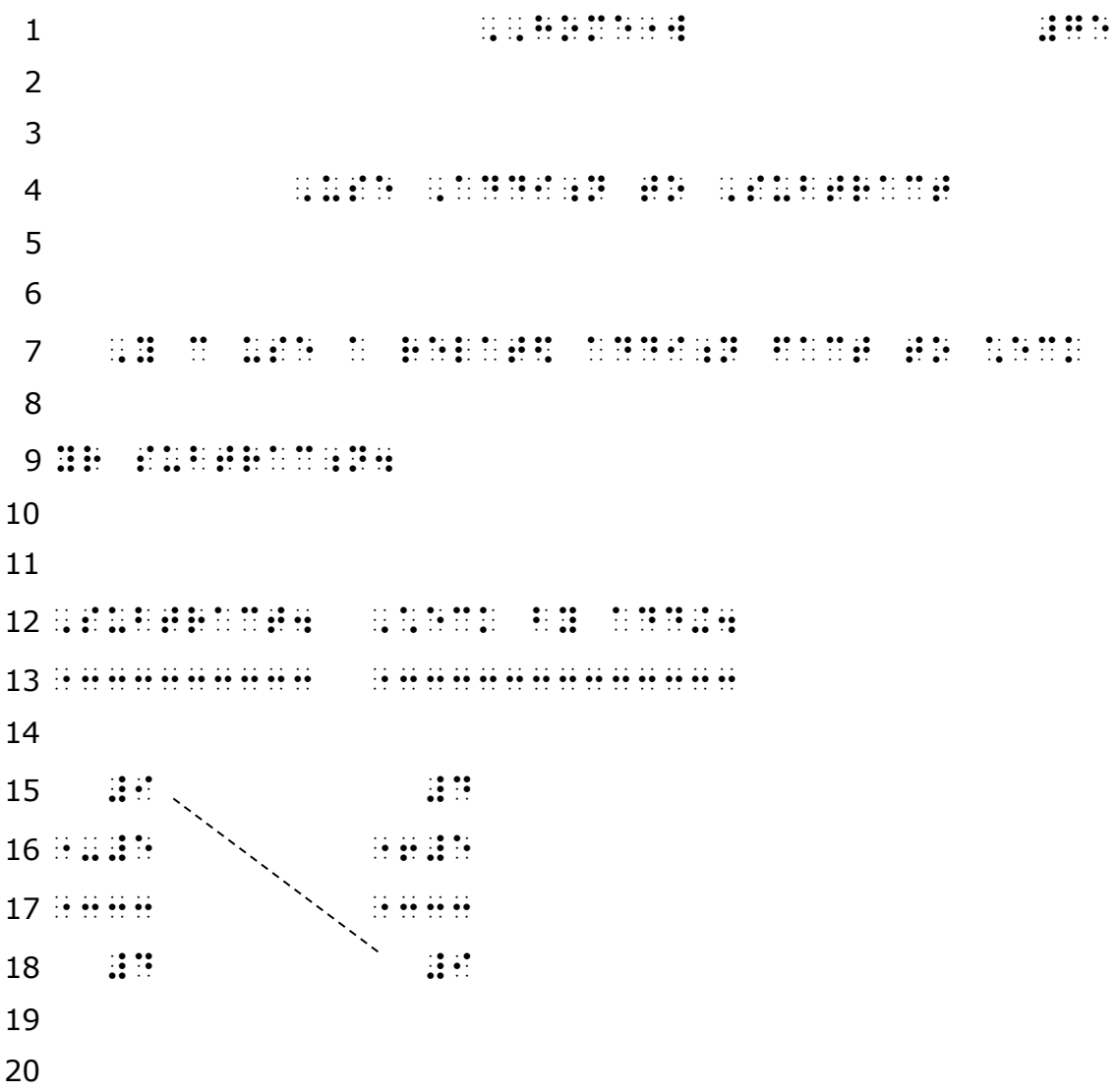
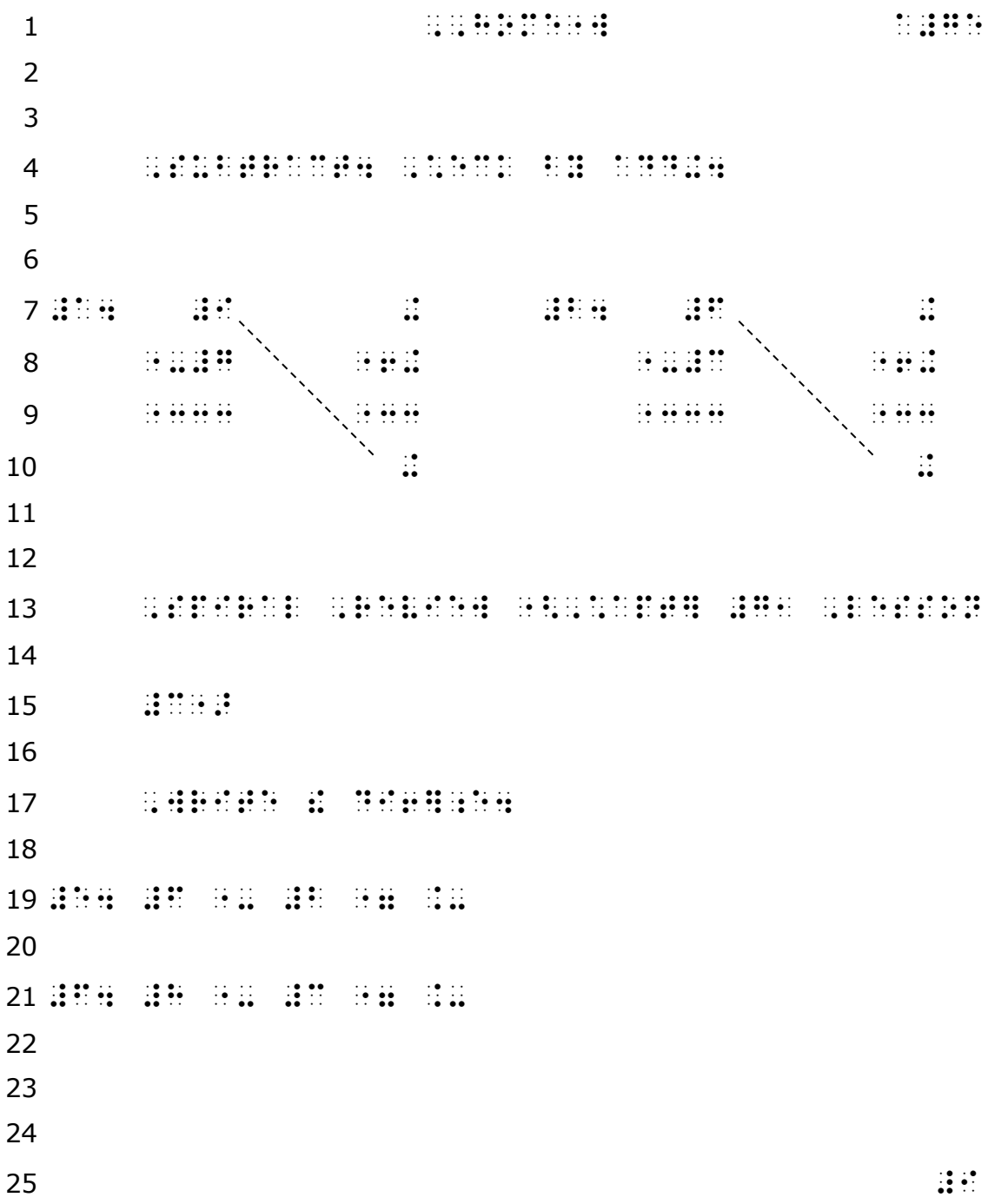
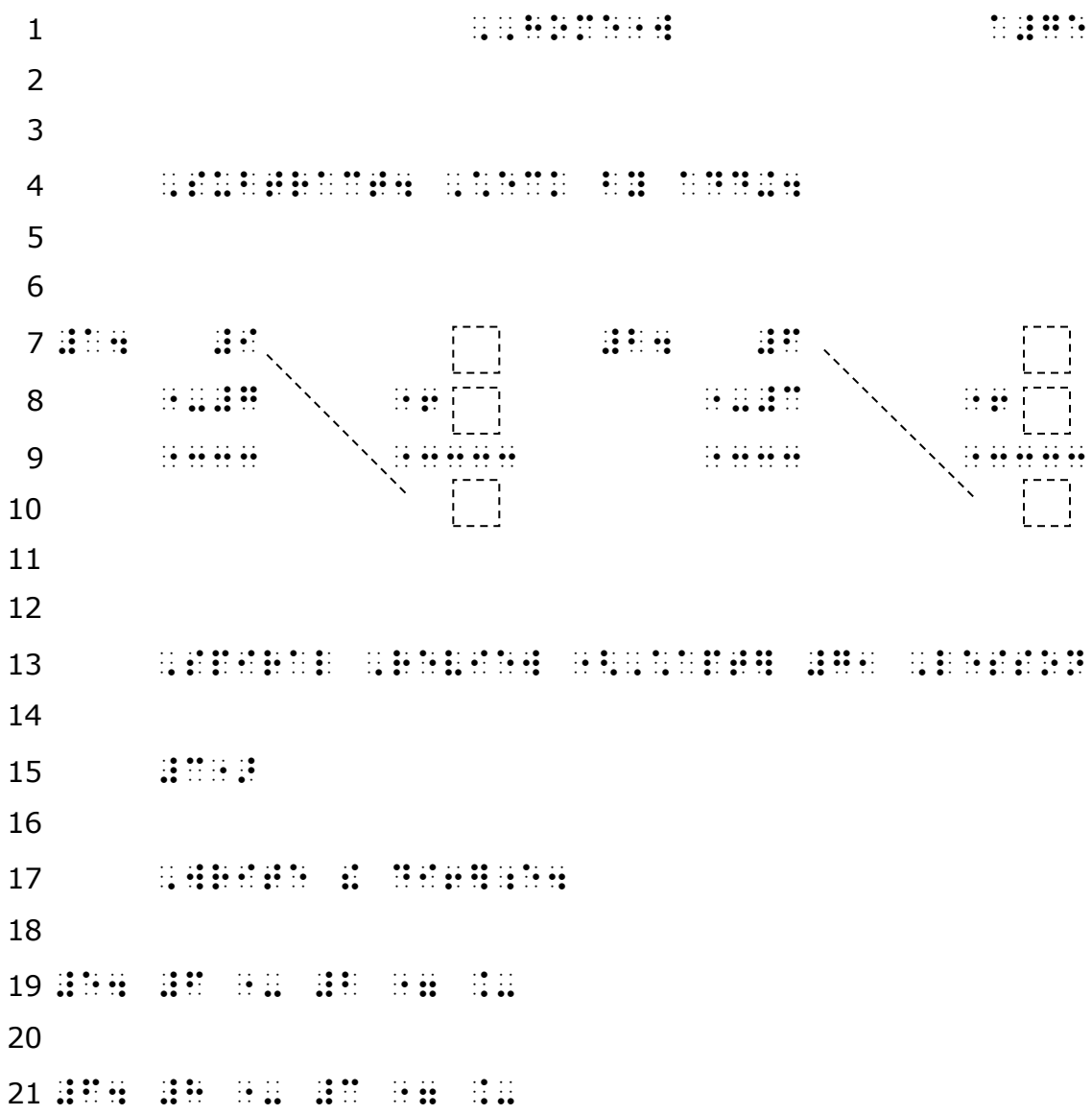
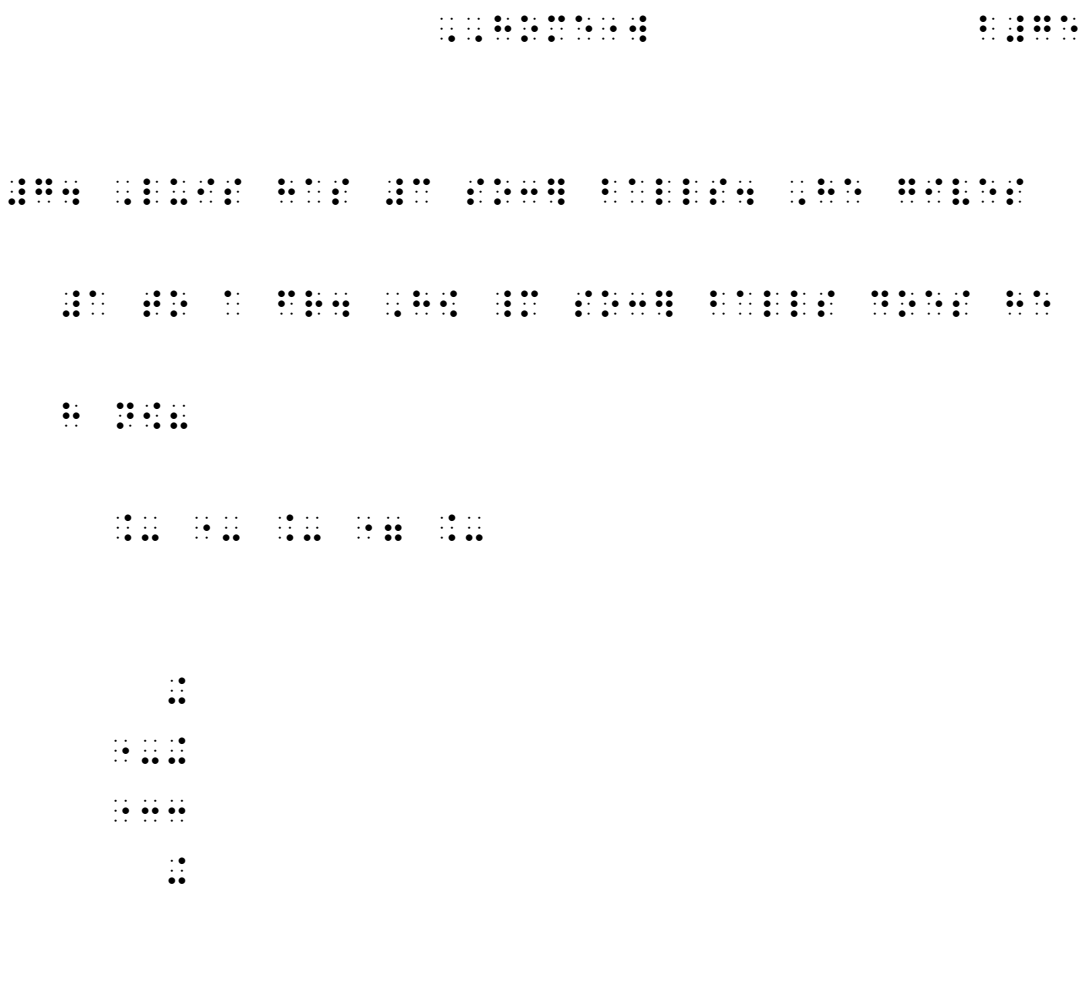


In order to maintain the relationship between the two sentences and the problems that follow, it was necessary to keep the two problems side by side. The two sentences were made into column headings. The arrowhead is omitted on the spurred line because direction wasn't necessary.



The visible space symbol (⍽) representing a space to be filled in is used in textbooks. (*UEB Guidelines for Technical Material, 2014*, 3.6.) However, for worksheets or homework sheets intended for a specific student it may be beneficial to draw squares to identify the missing number as shown on the following page.





Math Example 4

Name _____ Date _____

Chapter 13, Lesson 1
Homework

Count by Twos

What number comes next if you skip count by 2s?

Find 56 on the chart.
Skip count by 2s.

56, 58, 60

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

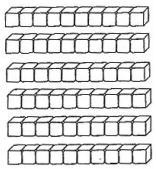
Solution: The number 60 comes next.

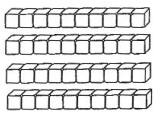
Write the missing numbers. Skip count by 2s.

1. 8, _____, 12, _____
2. _____, 54, _____, 58
3. 18, _____, _____, 24
4. 80, _____, 84, _____
5. 32, _____, 36, _____
6. _____, 46, _____, 50
7. 76, _____, _____, 82
8. 88, _____, 92, _____

Spiral Review (Chapter 12, Lesson 1)

Write the number of tens shown.
Write the number.

9. 
_____ tens
_____ sixty

10. 
_____ tens
_____ forty

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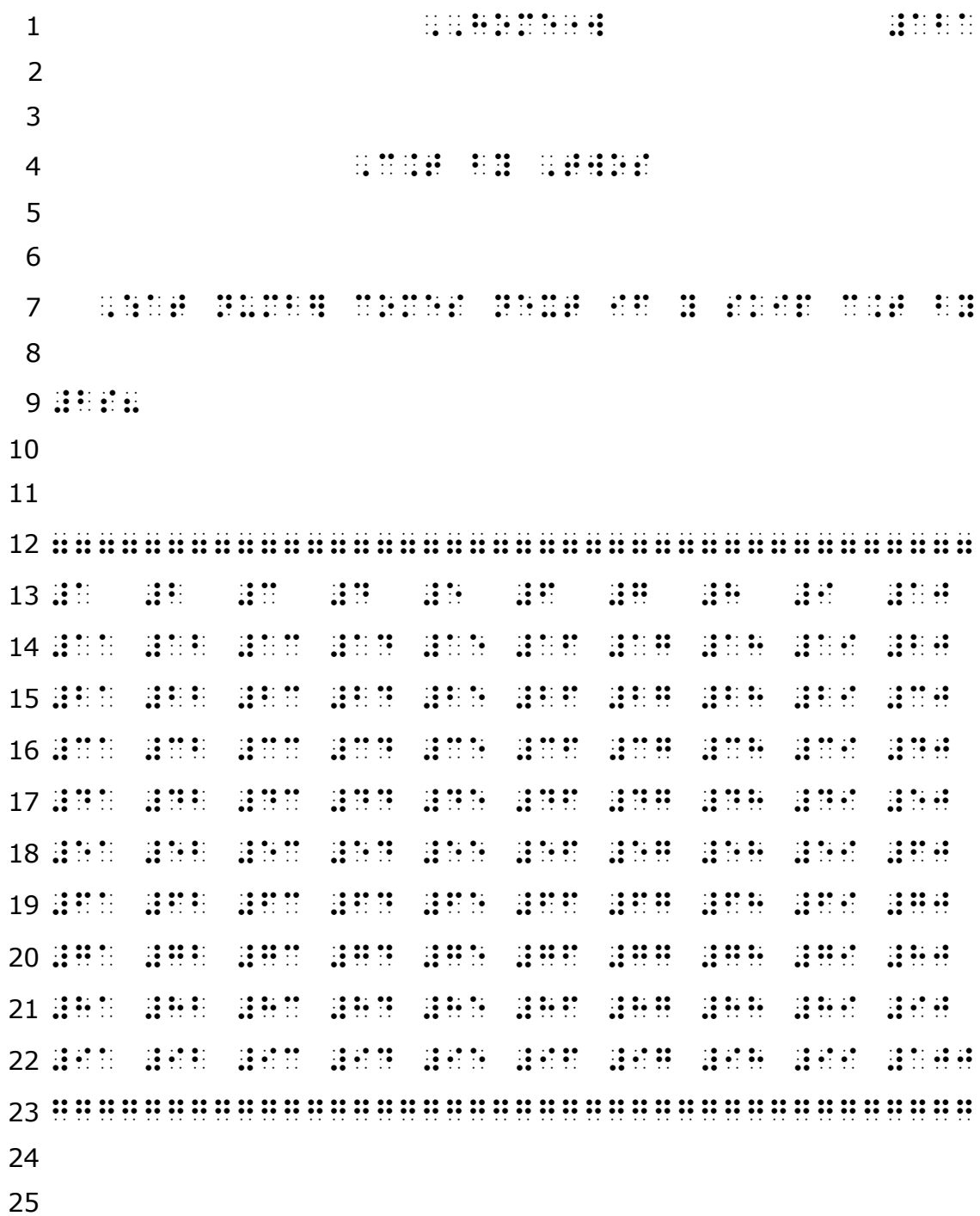
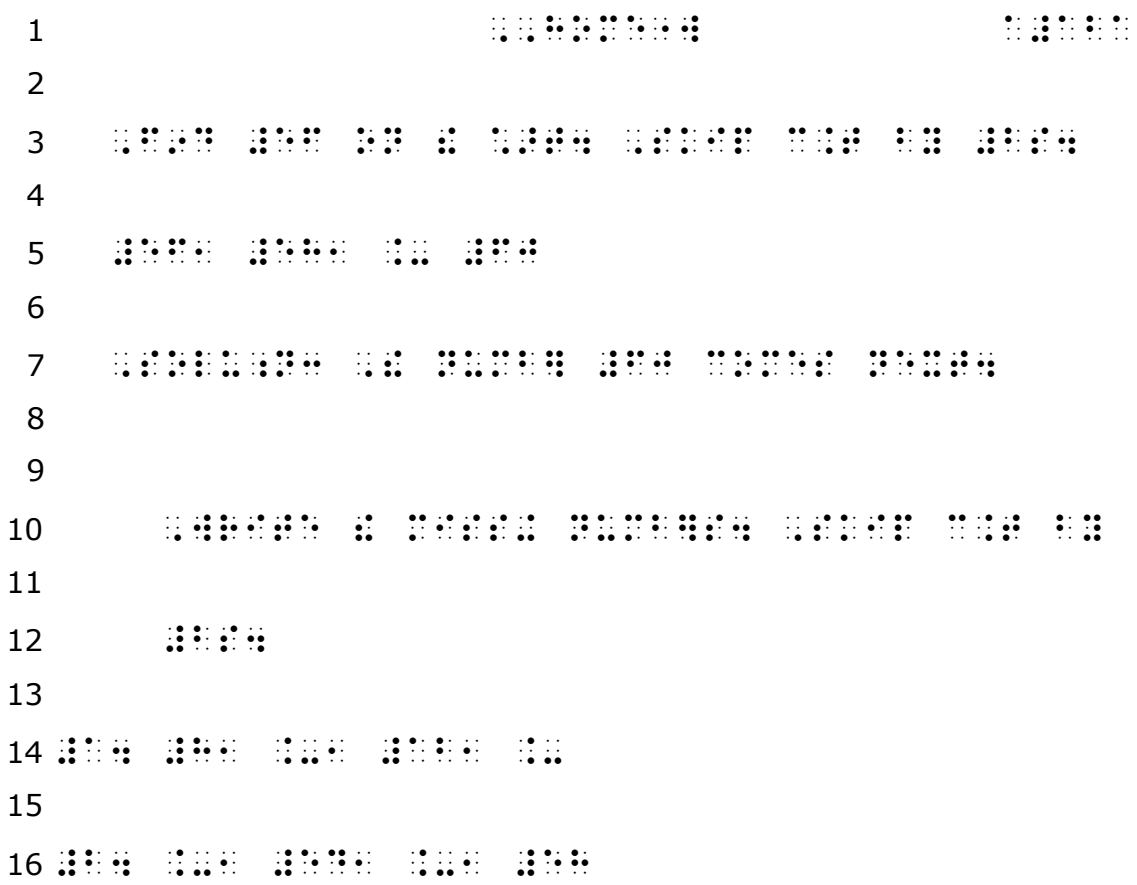


Single spacing is used within the chart because it is a 100's chart rather than specific columned data. As a 100's chart single spacing is also used to keep numbers together in rows of 10. For the young reader the numeric indicator is retained within the chart. The numbers are not aligned by place value in print, therefore, the braille follows the print. Number signs are left justified.



A transcriber’s note on the braille page or on the Transcriber's Notes page and in the Teacher’s Reference Materials should reflect that shaded answers printed above blank lines in print are placed directly after the blank line in braille.

Math Example 5

Name _____ Date _____

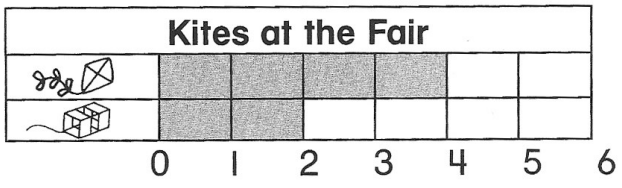
Chapter 10, Lesson 3
Homework

Make a Bar Graph

You can use a tally chart to make a bar graph.
Color one box for each tally.

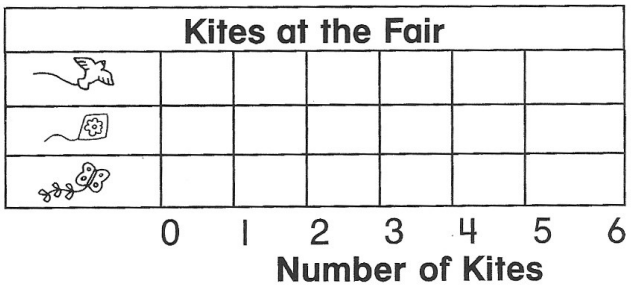
Solution:

Kites at the Fair	
	IIII
	II



Use the tally chart to make a bar graph.
Color one box for each tally.

	Kites	
1.		IIII
2.		III
3.		IIII



Spiral Review (Chapter 9, Lesson 3)

Write the number sentences and complete the table.

Whole	
8	
Part	Part
2	

4. $2 + ____ = 8$

5. $8 - 2 = ____$

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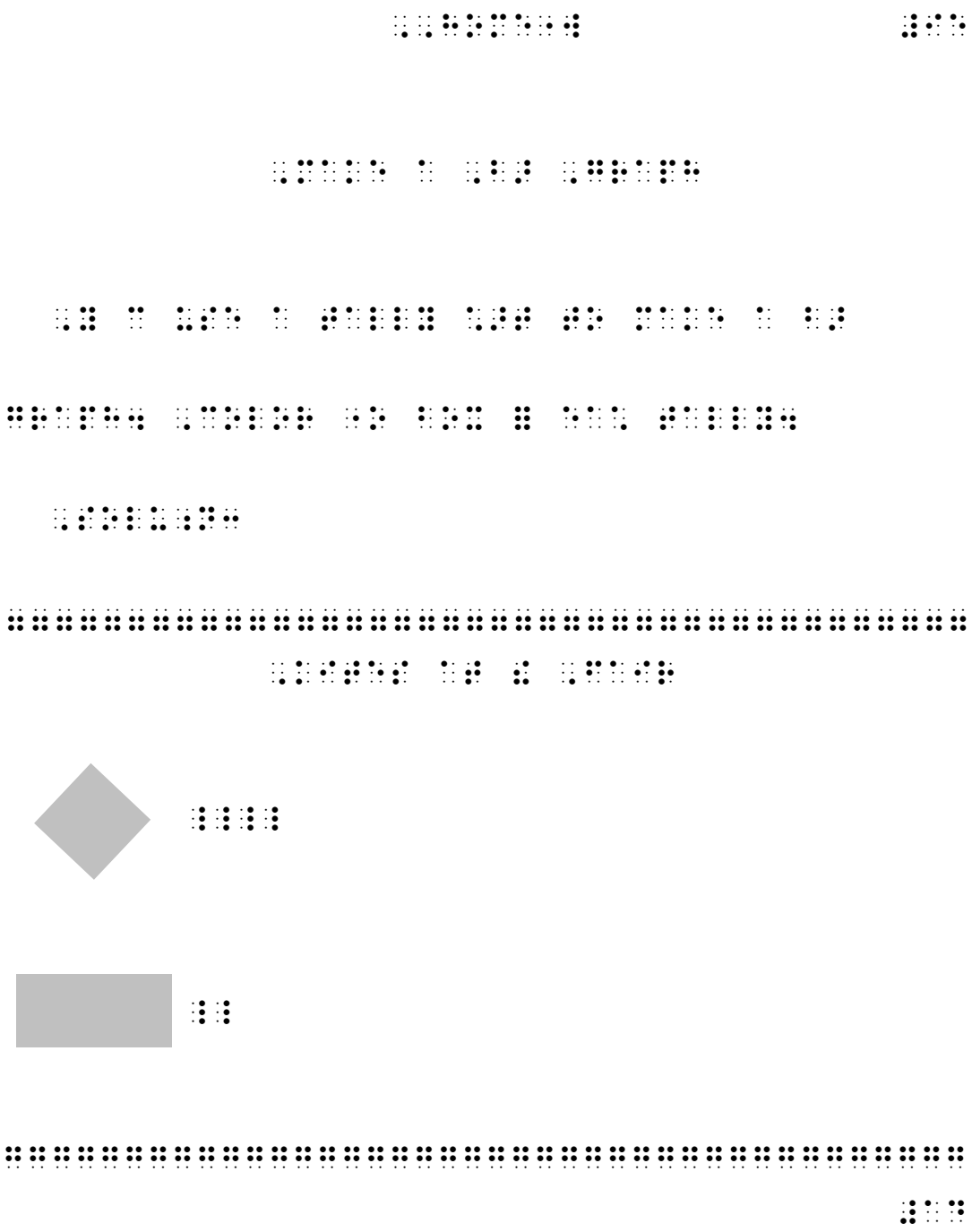
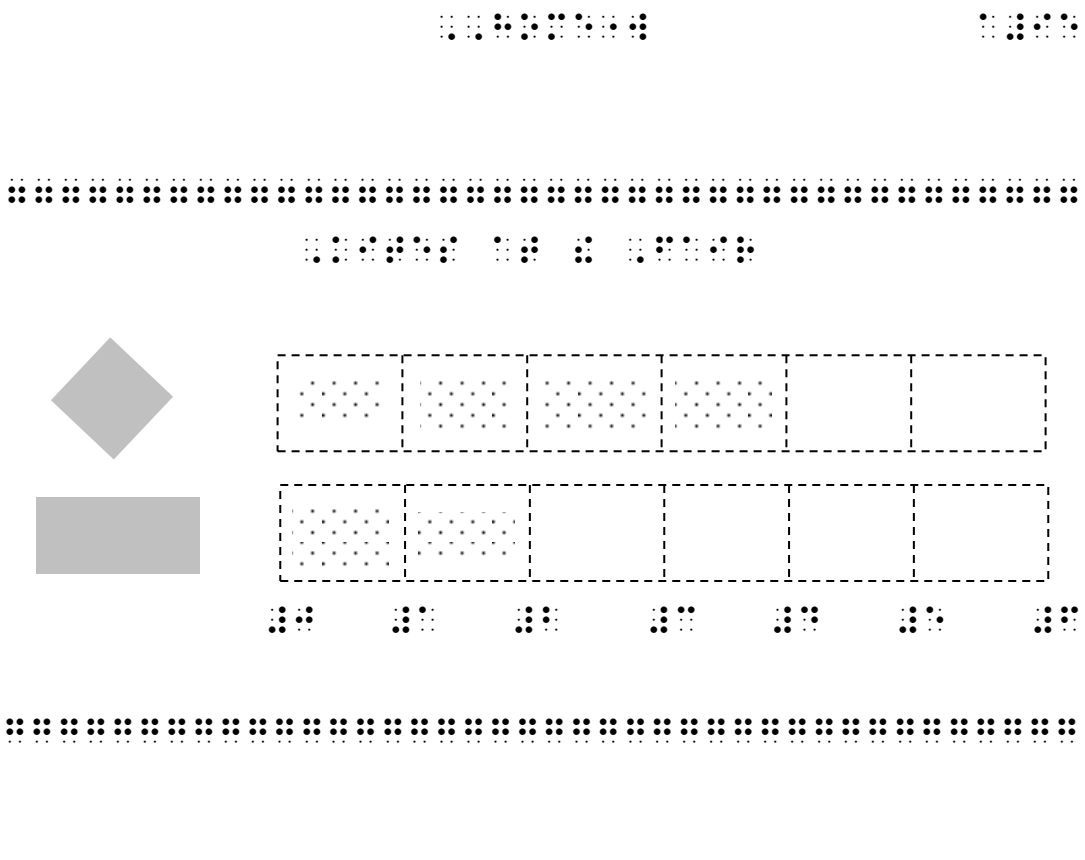


The shapes are solid tactile items, pasted on the page, therefore the blank line following them is retained. Tactiles may also be created as a shaded raised image.

Only one blank line is used before and after the chart in order to keep the chart on the same page.



Solid shapes represent pictures. The boxes are spurred for the graph, with texture in the "colored" boxes.

The numbers are labels that are part of the tactile drawing so the blank line is left below them.

Math Example 6

Name _____ Date _____

Chapter 20, Lesson 2
Homework

Count Nickels

Count by 5s. Find the value of the nickels.
Use coins if you wish.

5¢ 10¢ 15¢ 20¢ **Solution:** 20 ¢

Find the value of the nickels.

1.

___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢

2.

___ ¢ ___ ¢ ___ ¢ ___ ¢

3.

___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢

Spiral Review (Chapter 19, Lesson 2)

Write the missing numbers

4. $16 - 9 = ___$
   $9 + ___ = 16$

5. $18 - 8 = ___$
   $8 + ___ = 18$

Homework
195

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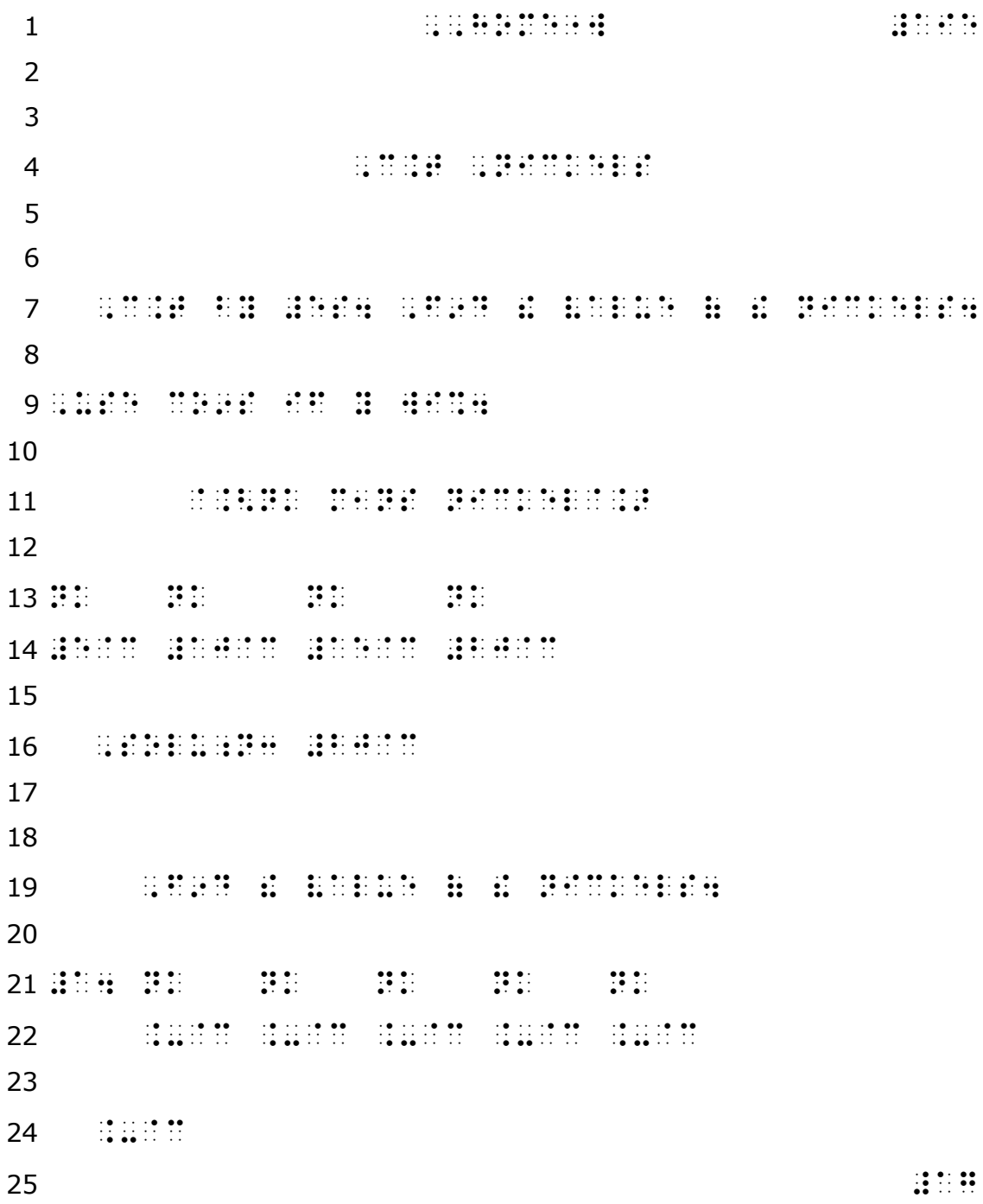
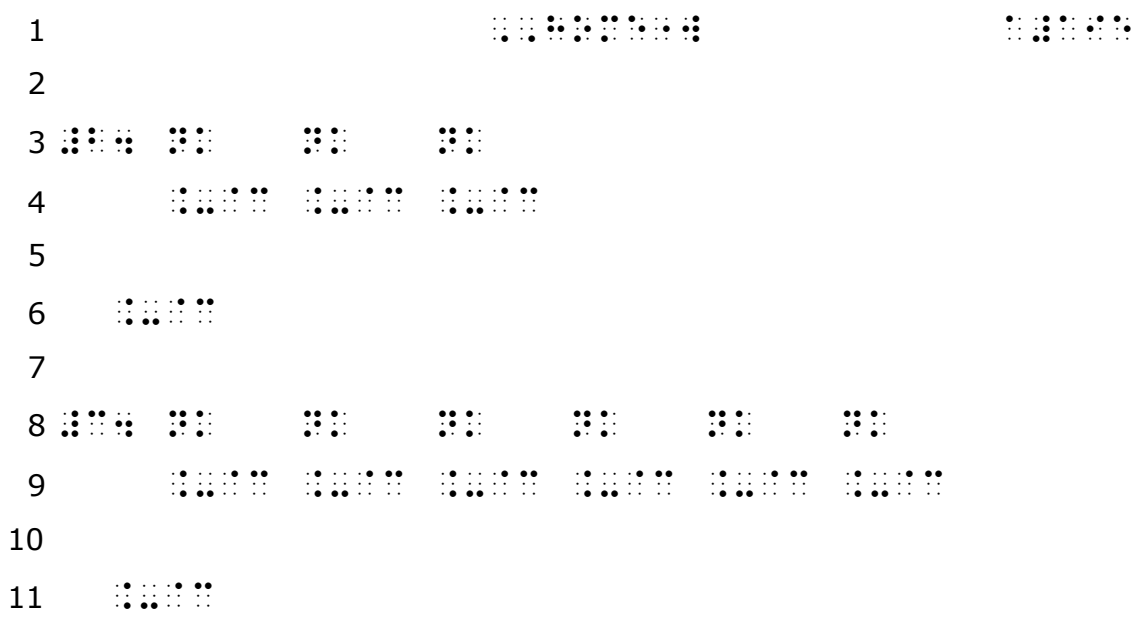


The symbol for the nickel is from the *Guidelines and Standards for Tactile Graphics, 2010*. There is no blank line between the "nickels" on the line and the values, or the counting dashes underneath the nickels, even though format is double-spaced.



Math Example 7

Name _____ Date _____

Chapter 11, Lesson 4
Leveled Problem Solving

Motion and Rhythmic Patterns

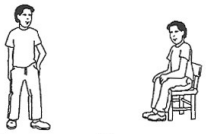
Solve.

1. Alexis hears these sounds.

What sound will she hear next?

2. Miles does these motions.

What should he do next?



3. Noah does these motions. His pattern is:

What should he do next?

_____

4. Mia hears these sounds.

What sound will she hear next?

_____

5. Mason makes this pattern.

What is next in his pattern?

_____

6. Mia makes this pattern.

What is next in her pattern?

_____

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Math Example 8

Name _____ Date _____

Chapter 22, Lesson 4
Homework

Half Hour

An hour is 60 minutes.

3:00
3 o'clock

A half-hour is 30 minutes.

3:30
half past 3

Say and write the time.

1. half past _____

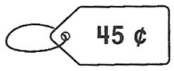
2. _____ o'clock

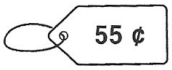
3. half past _____

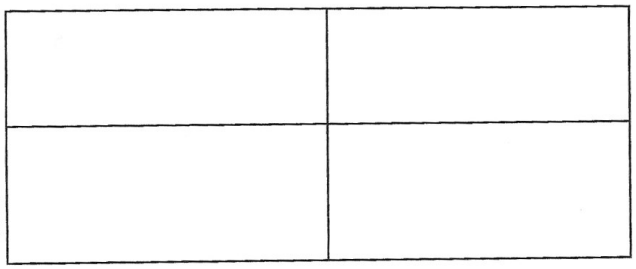
4. _____ o'clock

Spiral Review (Chapter 21, Lesson 4)

Show the amount in 2 different ways. Draw the coins.

5. 

6. 



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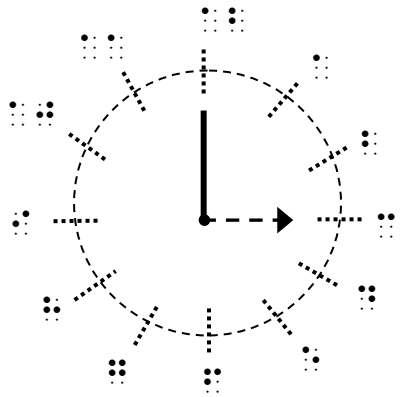
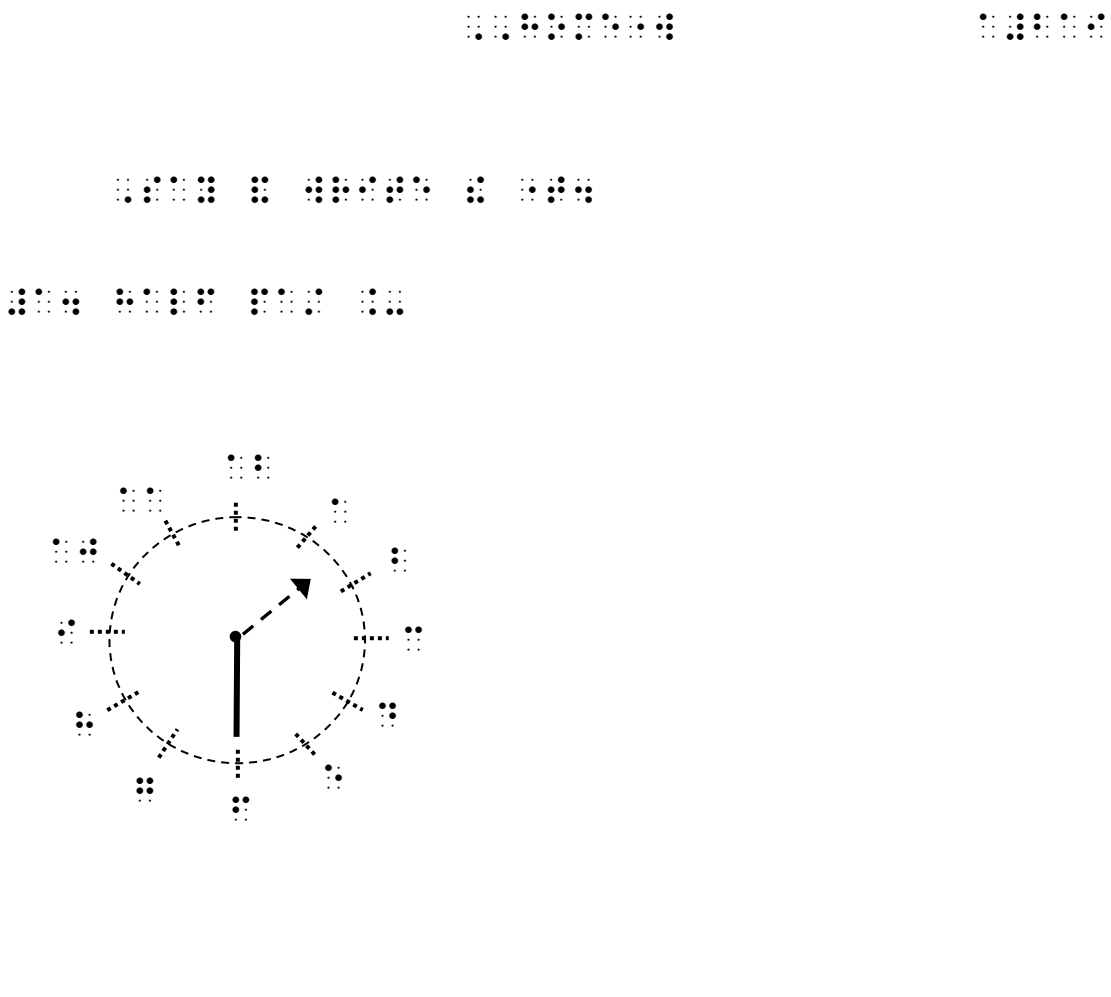
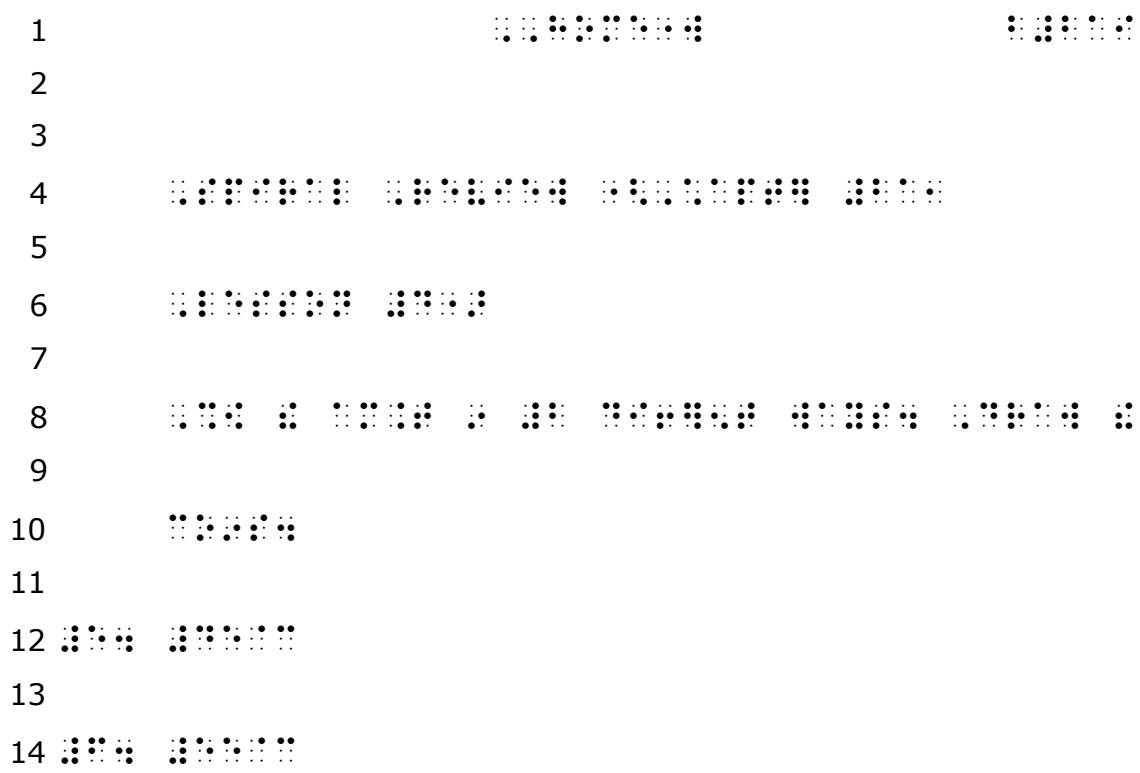


Draw clocks the same way as the clock on this page for any age level. This format is given in the *Guidelines and Standards for Tactile Graphics, 2010*.



The answer line is placed first for clarity.



First Grade Mathematics Examples
UEB with Nemeth

These mathematics examples are brailled using guidelines found in:

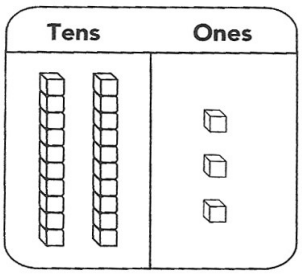
BANA Guidelines for the Transcription of Early Educational Materials from Print to Braille
The Rules of Unified English Braille, Second Edition 2013
Braille Formats: Principles of Print-to-Braille Transcription, 2016
The Nemeth Braille Code for Mathematics and Scientific Notation, 1972 Revision
Guidance for Transcription Using the Nemeth Code within UEB Contexts 2018
Guidelines and Standards for Tactile Graphics, 2010

Math Example 1

Name _____ Date _____ | Homework

Read and Write Numbers to 50

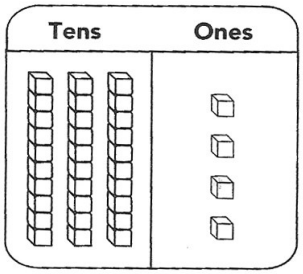
Show the number as tens and ones.



2 tens 3 ones 23
twenty-three

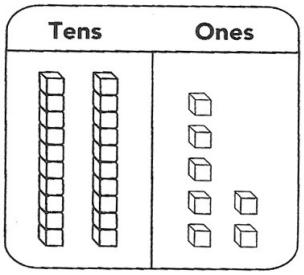
Write the number.

1.



____ tens ____ ones ____
thirty-four

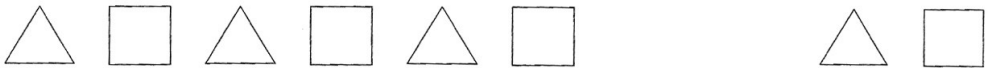
2.



____ tens ____ ones ____
twenty-seven

Spiral Review (Chapter 1, Lesson 5)

Circle the picture that comes next in the pattern.

3. 

4.

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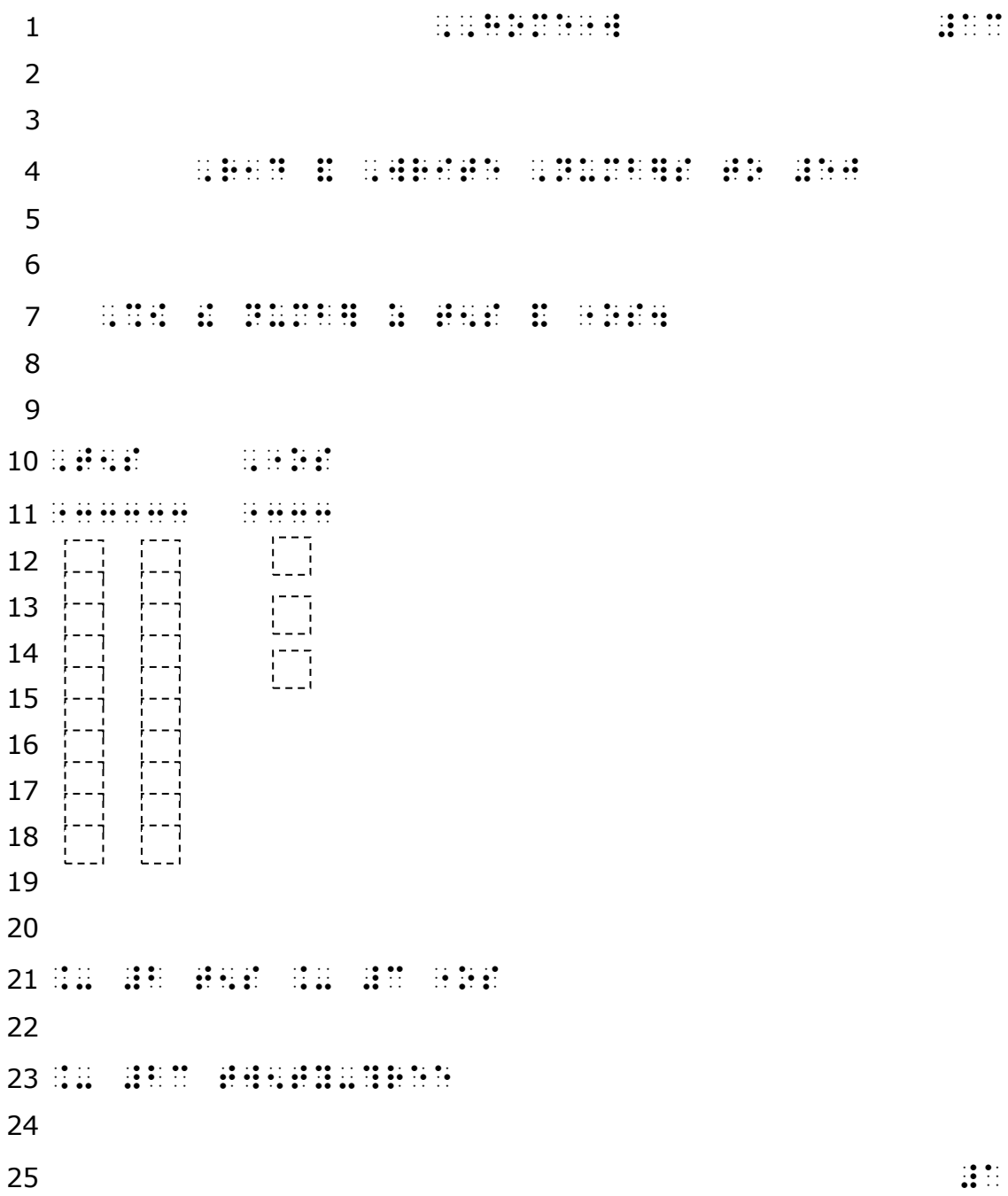
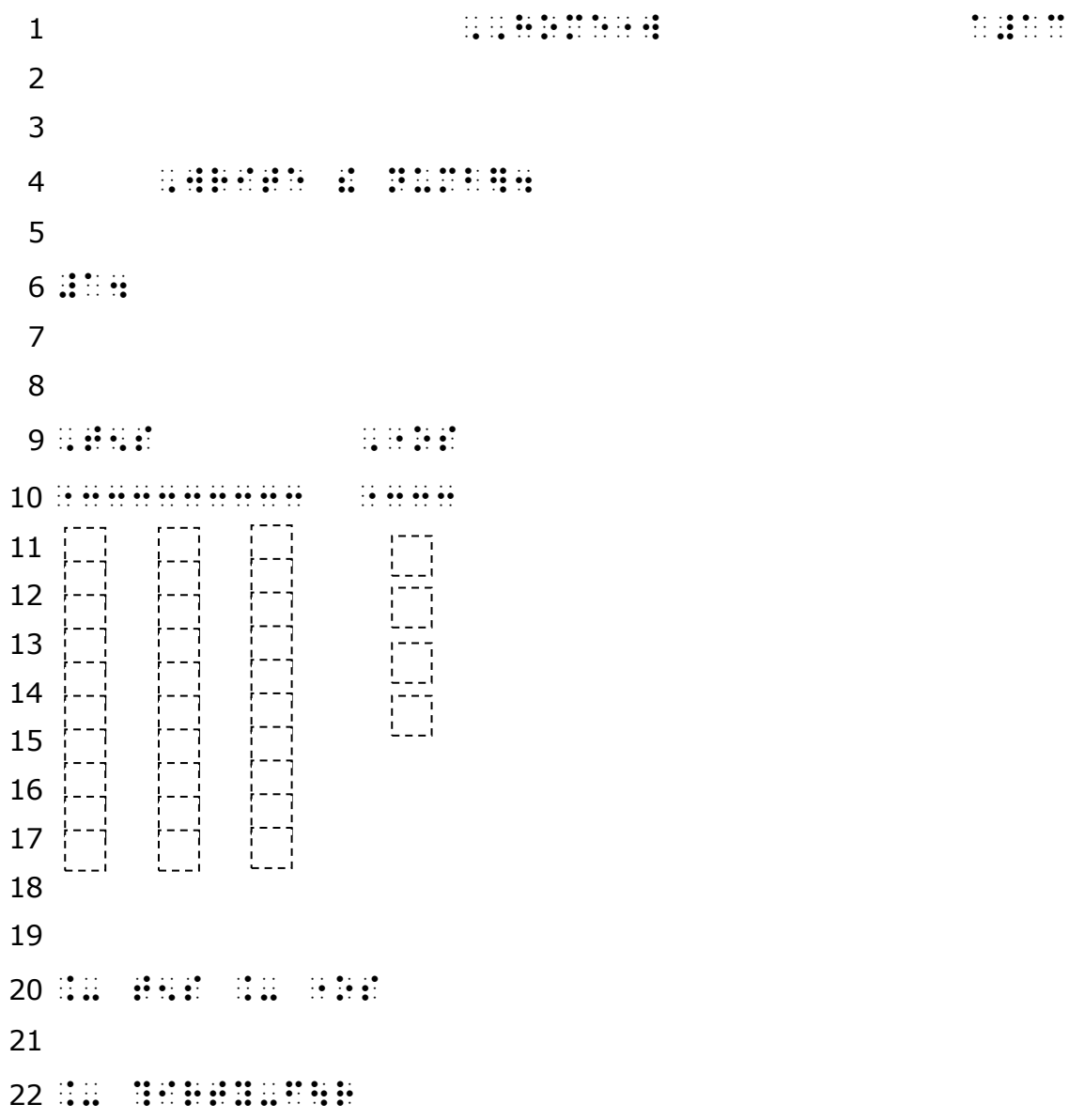


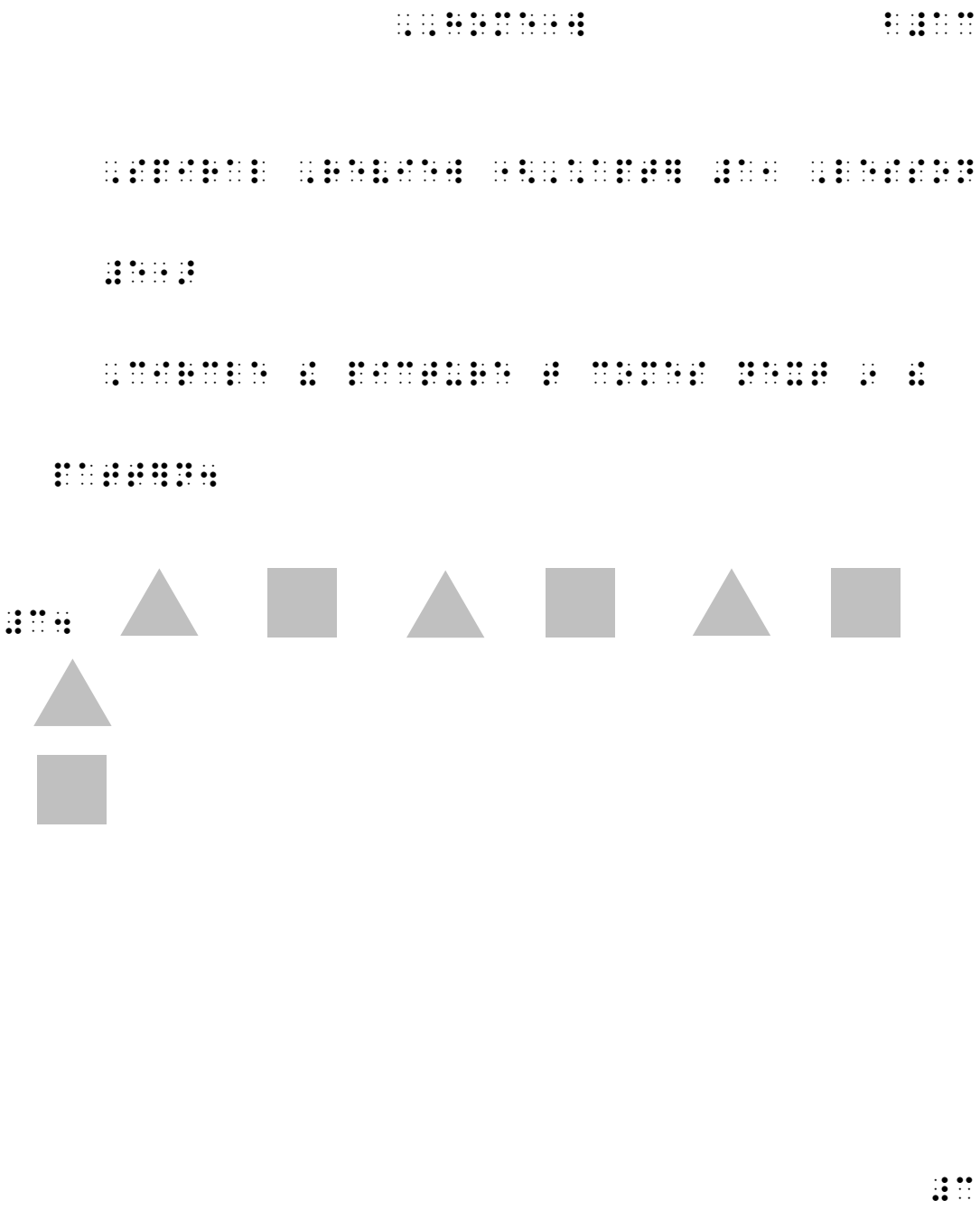
This is a first grade worksheet. It is double-spaced.

Two blank lines are required above and below centered heading.

Include the following transcriber's note on the Transcriber's Notes page and in the Teacher's Reference Materials:

> In the print example the answers are shown in highlighted type. In braille the example answers are inserted after the underscore and before the number word.





The pattern shapes are solid and glued on, or created as a shaded raised image. The *Guidelines and Standards for Tactile Graphics 2010*, Unit 11.2.1, indicates that solid shapes are the easiest to read.

Math Example 2

Name _____ Date _____

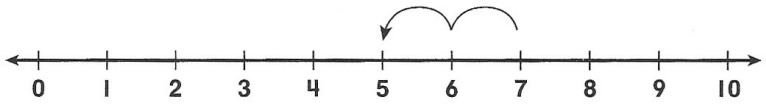
Chapter 8, Lesson 2
Homework

Use a Number Line to Subtract

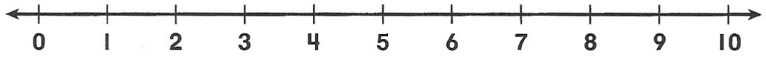
Find $7 - 2$.

You can use a number line to subtract.

Start at 7. Count back 2.



You end on 5. $7 - 2 = 5$



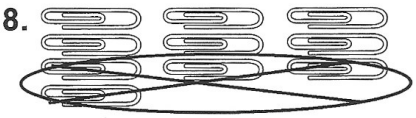
Use the number line to find the difference.

1. $6 - 3 =$ ____ 2. $4 - 2 =$ ____ 3. $7 - 1 =$ ____

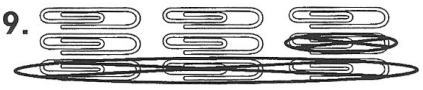
4. $\begin{array}{r} 5 \\ -2 \\ \hline \end{array}$ 5. $\begin{array}{r} 8 \\ -2 \\ \hline \end{array}$ 6. $\begin{array}{r} 4 \\ -1 \\ \hline \end{array}$ 7. $\begin{array}{r} 9 \\ -3 \\ \hline \end{array}$

Spiral Review (Chapter 7, Lesson 2)

Write the subtraction sentence.

8. 

_____ ⊖ _____ = _____

9. 

_____ ⊖ _____ = _____

10. Austin has 10 erasers. He gives 7 of them to his friends. How many erasers does Austin have now?

_____ ○ _____ ○ _____ erasers

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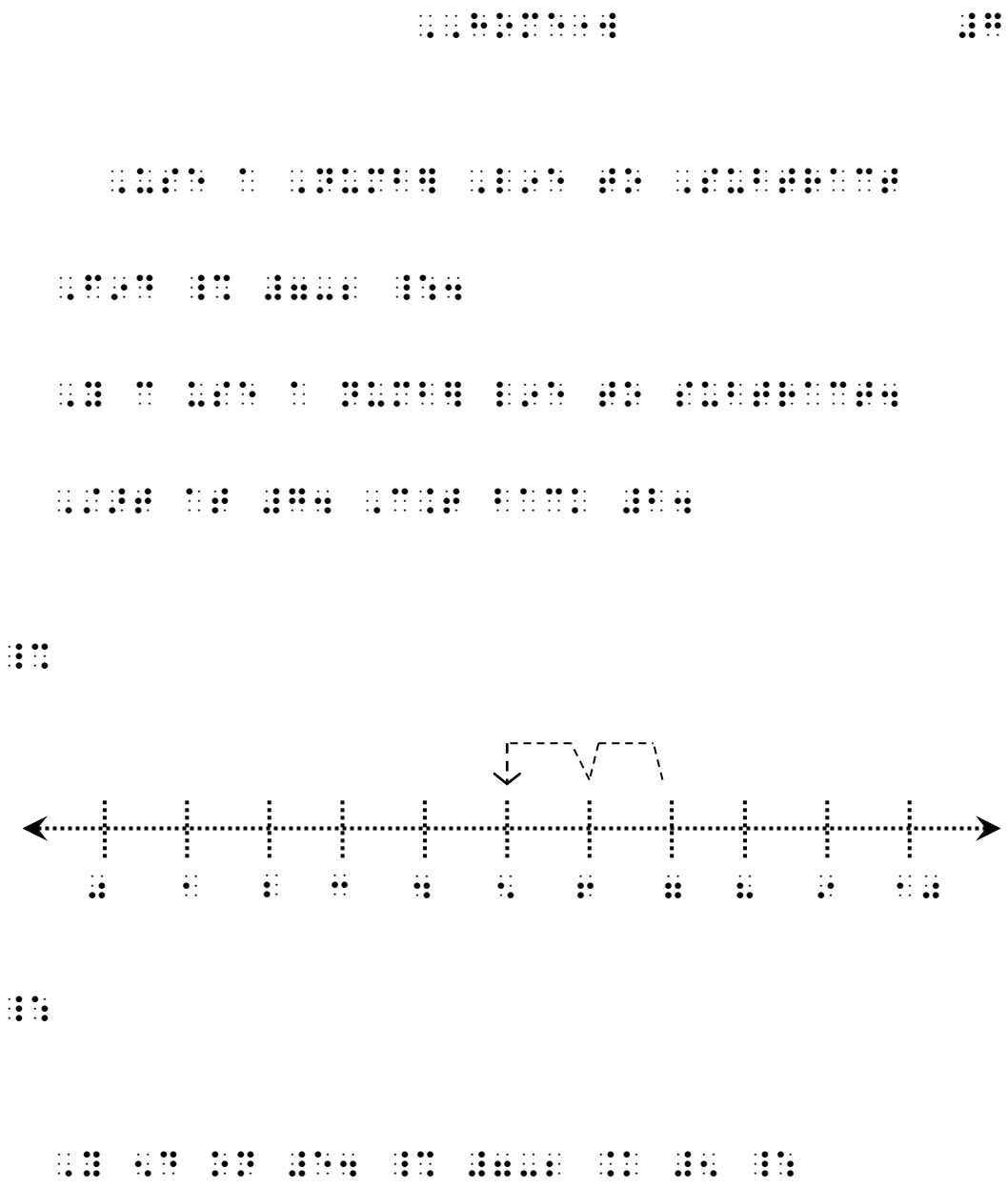
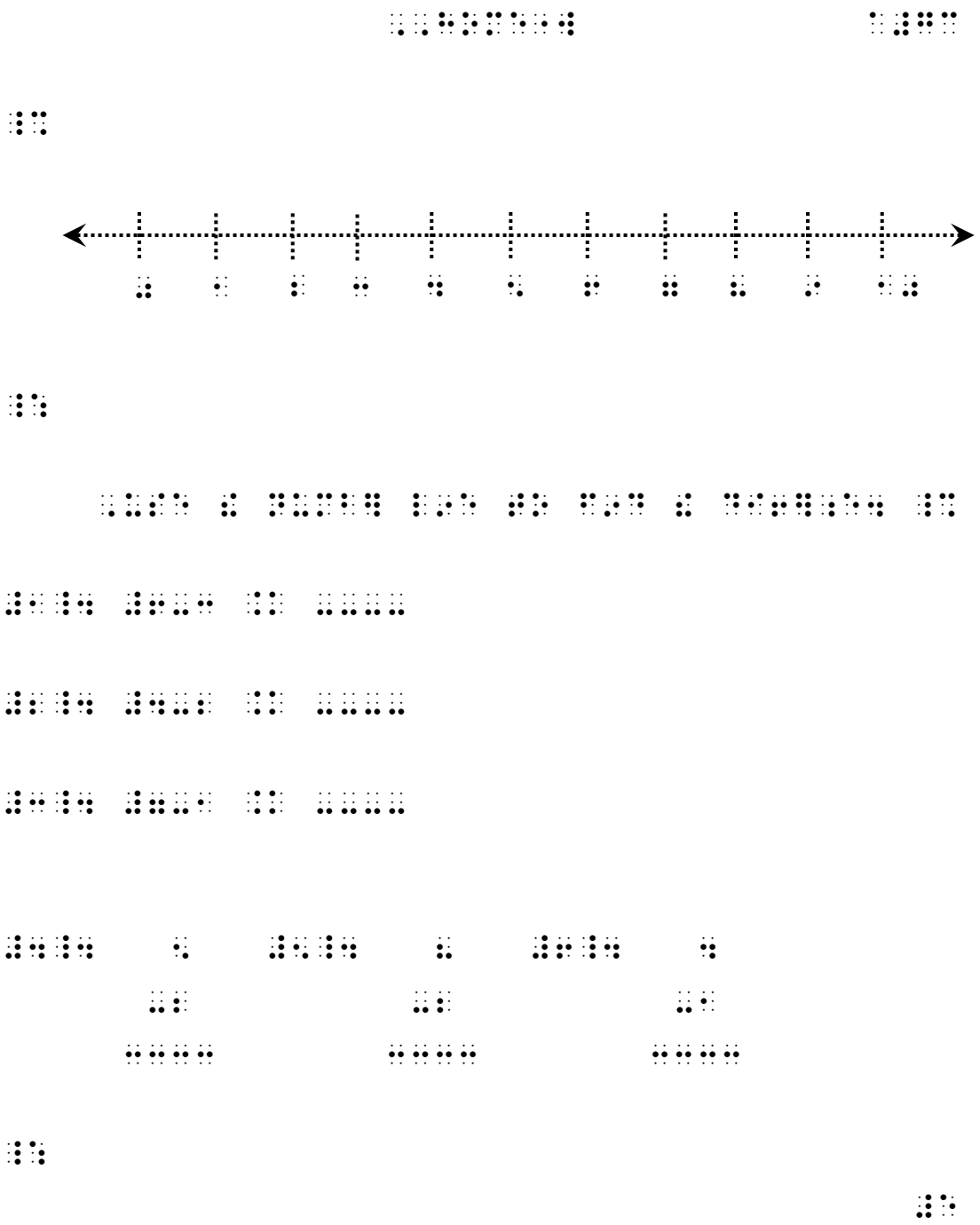
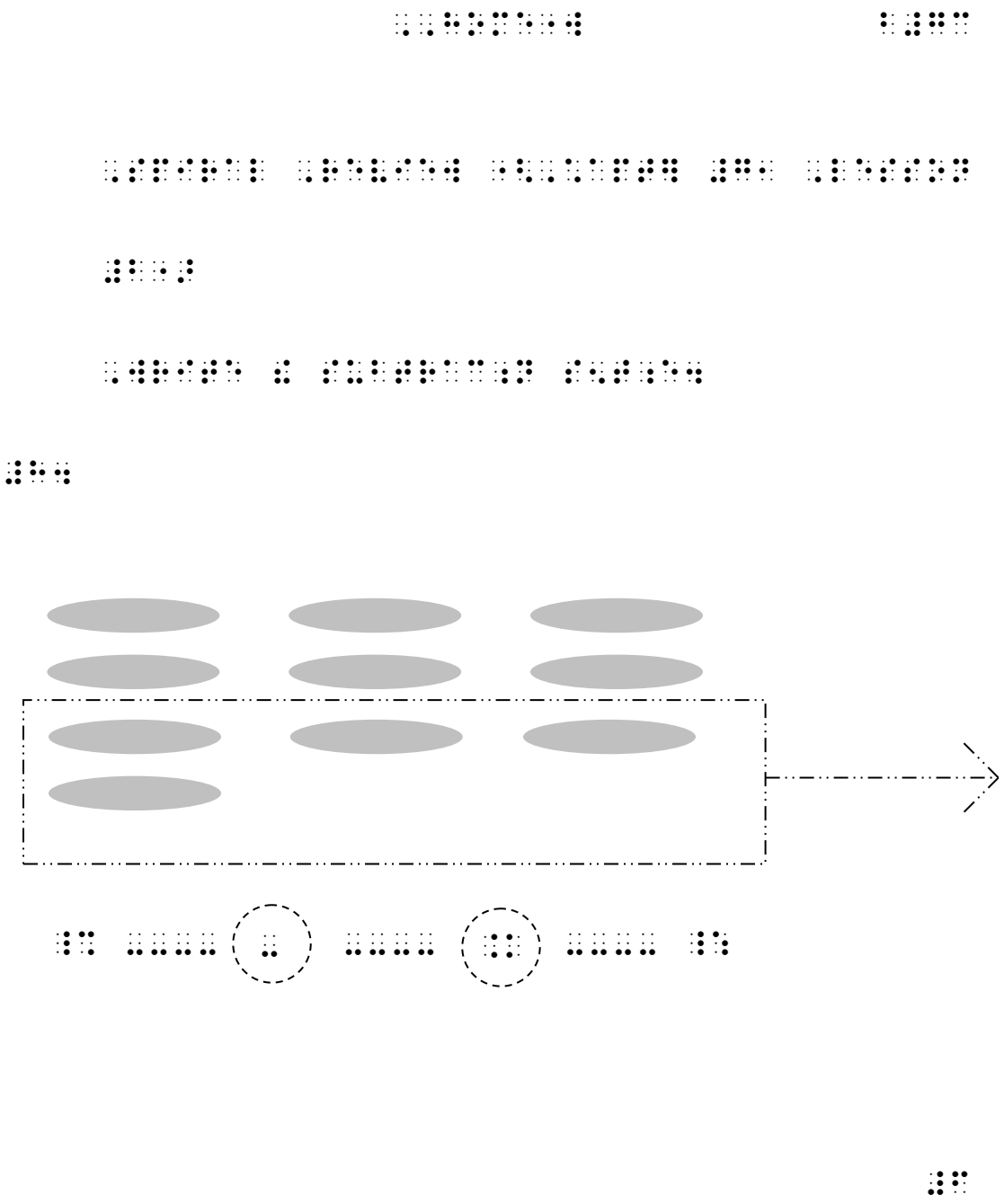


The number line is drawn for first through third grades. (*Guidelines and Standards for Tactile Graphics 2010*, Unit 6.5.1.12). The counting arrow is straight rather than curved. Two blank lines are left between the graphic and text.

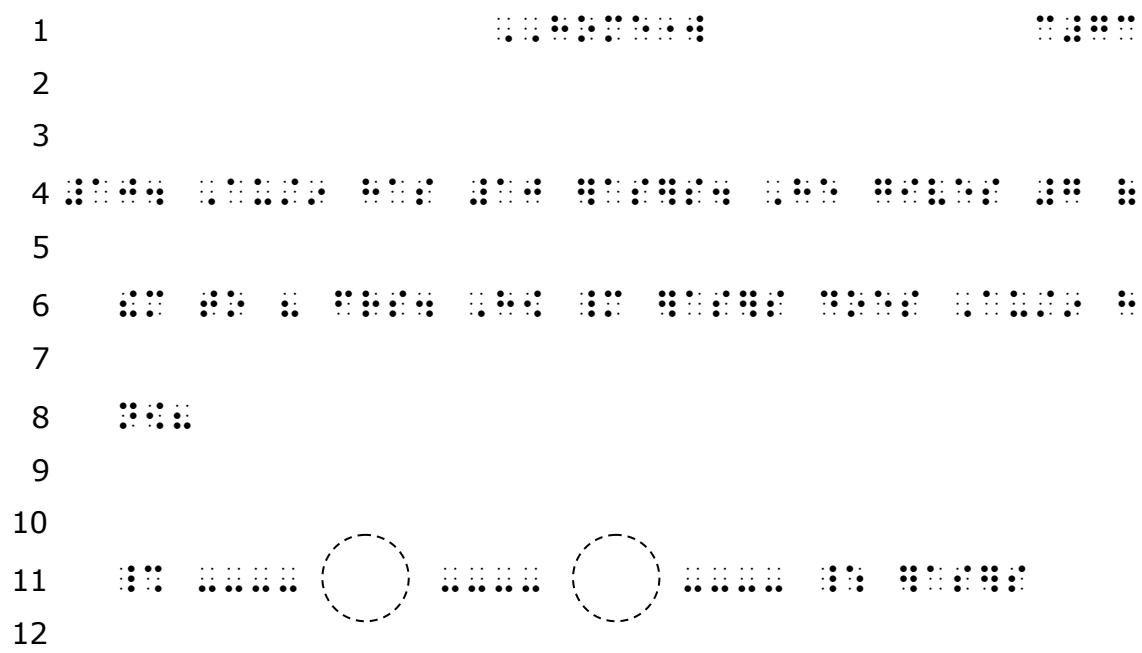


Draw the number line. Spatial problems are not double spaced within each problem.



The shapes are solid, not outlined.

A raised line is drawn around the part that is taken away. Raised line circles are spurred around the minus sign and equal sign just as in print.



Math Example 3

Name _____ Date _____

Chapter 8, Lesson 3
Homework

Use Addition to Subtract

You can use a related addition fact to check your subtraction.

Subtract. Check by adding.

$$\begin{array}{r} 9 \\ -\,5 \\ \hline 4 \end{array} \qquad \begin{array}{r} 4 \\ +\,5 \\ \hline 9 \end{array}$$

Subtract. Check by adding.

1. $\begin{array}{r} 9 \\ -\,7 \\ \hline \end{array}$ $\begin{array}{r} \square \\ +\,\square \\ \hline \square \end{array}$

2. $\begin{array}{r} 6 \\ -\,3 \\ \hline \end{array}$ $\begin{array}{r} \square \\ +\,\square \\ \hline \square \end{array}$

3. $\begin{array}{r} 7 \\ -\,3 \\ \hline \end{array}$ $\begin{array}{r} \square \\ +\,\square \\ \hline \square \end{array}$

4. $\begin{array}{r} 8 \\ -\,4 \\ \hline \end{array}$ $\begin{array}{r} \square \\ +\,\square \\ \hline \square \end{array}$

Spiral Review (Chapter 7, Lesson 3)

Write the difference.

5. $6 - 2 =$ ____

6. $8 - 3 =$ ____

7. Luis has 3 soccer balls. He gives 1 to a friend. How many soccer balls does he have now?

_____ − _____ = _____ $\begin{array}{r} \square \\ -\,\square \\ \hline \square \end{array}$

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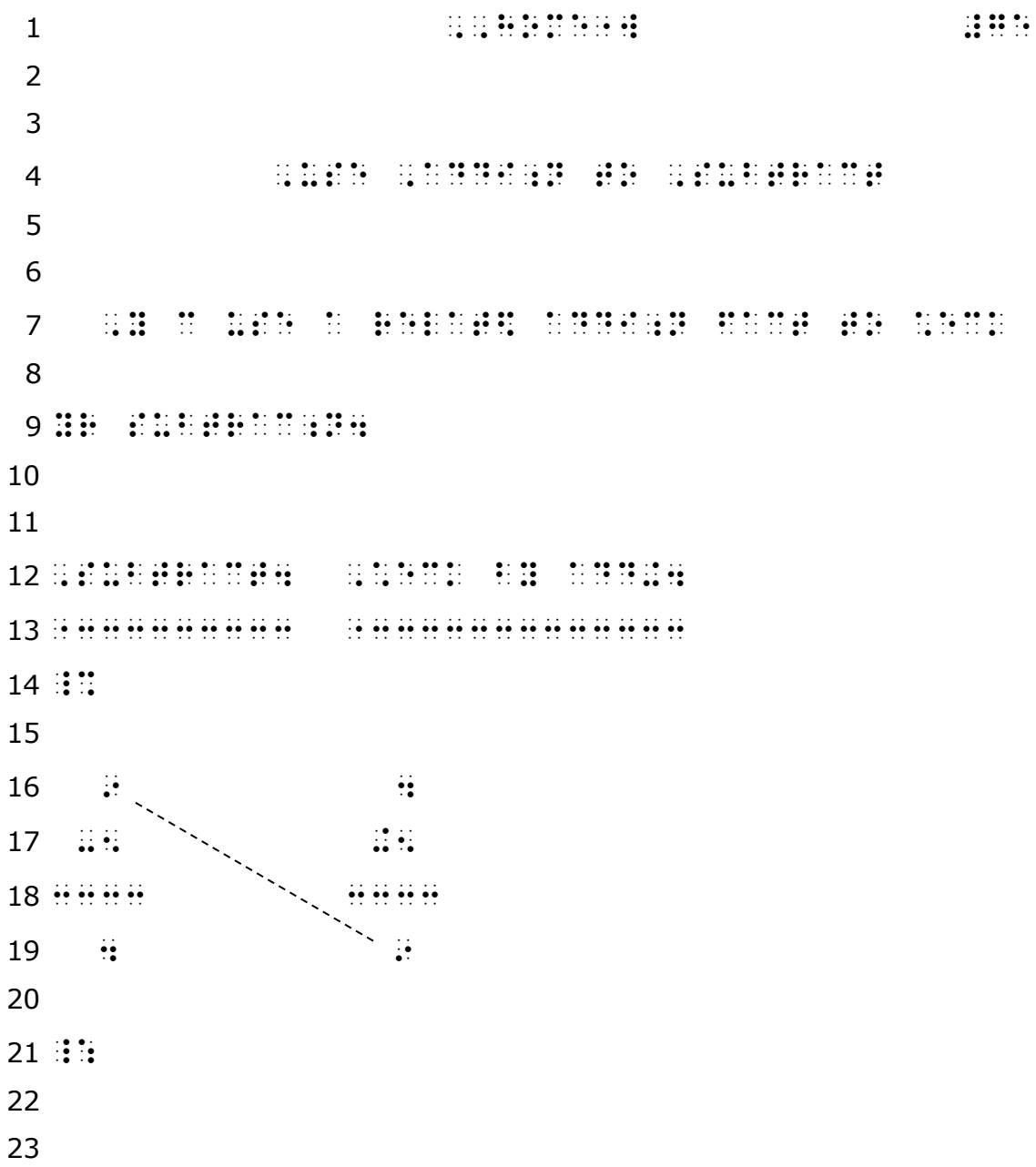
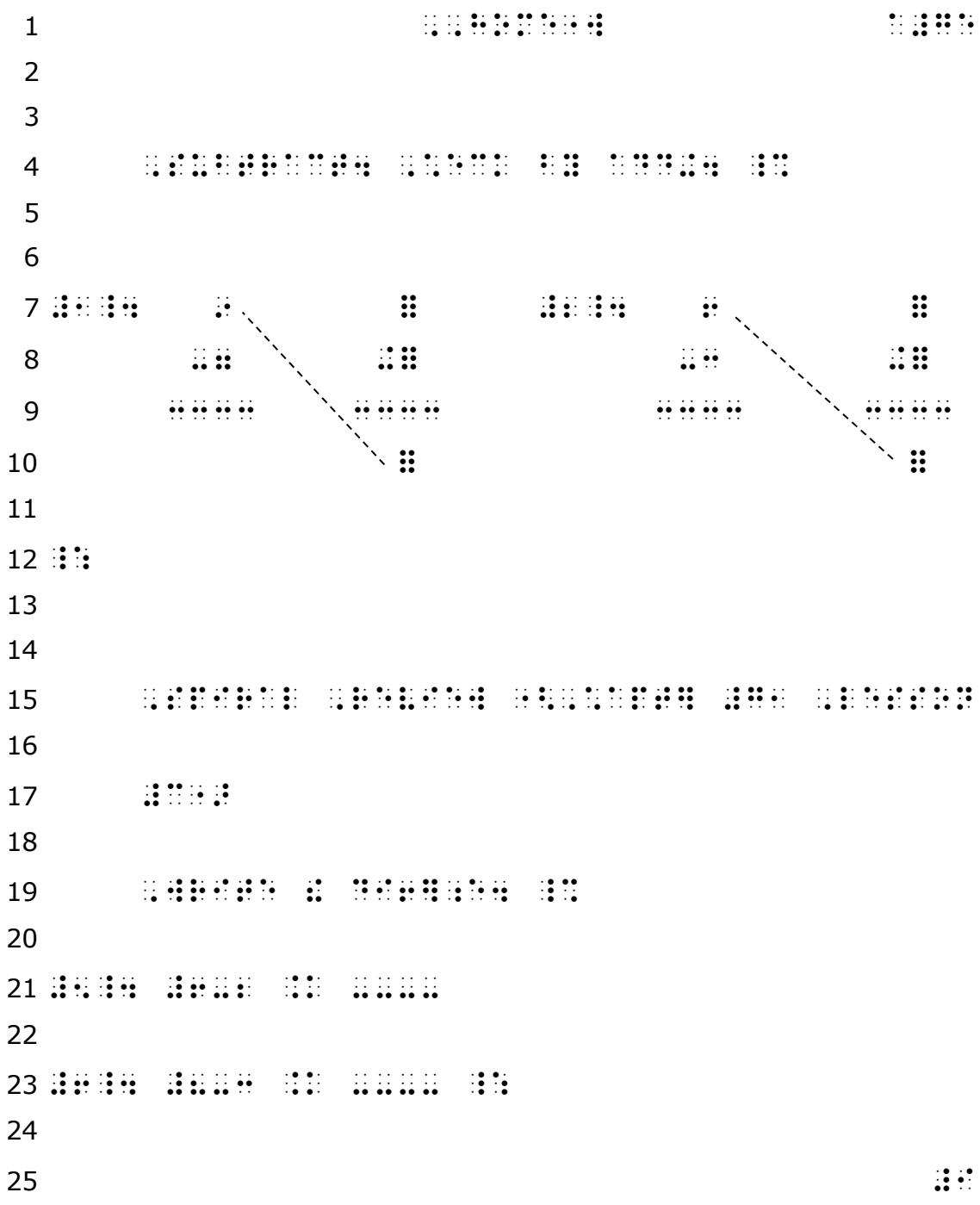
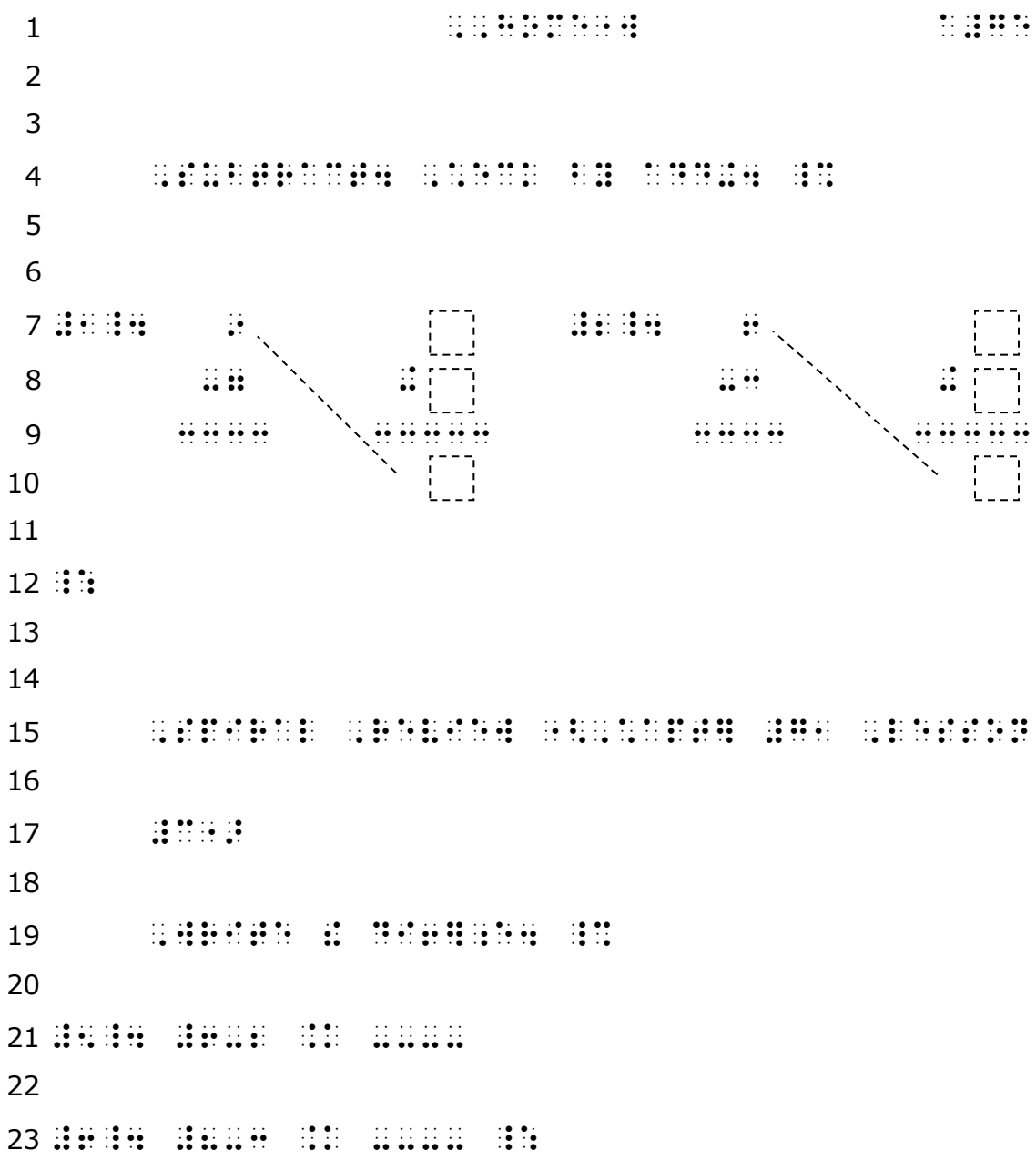
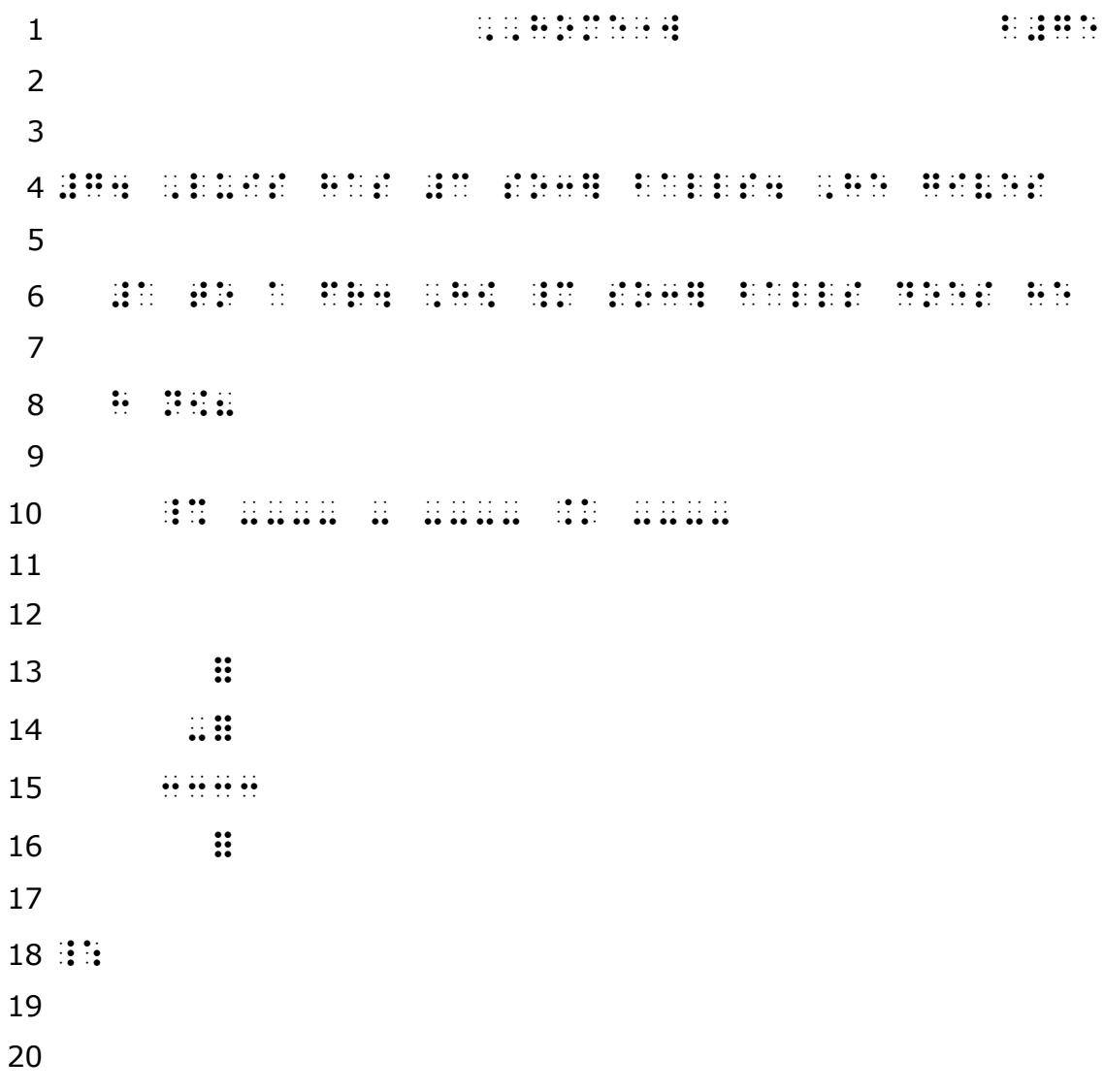


In order to maintain the relationship between the two sentences and the problems that follow, it was necessary to keep the two problems side by side. The two sentences were made into column headings. The arrowhead is omitted on the spurred line because direction wasn't necessary.



The general omission symbol representing a space to be filled in is used in textbooks. (*Nemeth Braille Code for Mathematics and Science Notation 1972*) However, for worksheets or homework sheets intended for a specific student it may be beneficial to draw squares to identify the missing number as shown on the following page.





Math Example 4

Name _____ Date _____

Chapter 13, Lesson 1
Homework

Count by Twos

What number comes next if you skip count by 2s?

Find 56 on the chart.
Skip count by 2s.

56, 58, 60

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

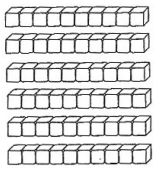
Solution: The number 60 comes next.

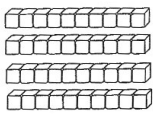
Write the missing numbers. Skip count by 2s.

1. 8, _____, 12, _____
2. _____, 54, _____, 58
3. 18, _____, _____, 24
4. 80, _____, 84, _____
5. 32, _____, 36, _____
6. _____, 46, _____, 50
7. 76, _____, _____, 82
8. 88, _____, 92, _____

Spiral Review (Chapter 12, Lesson 1)

Write the number of tens shown.
Write the number.

9. 
_____ tens
_____ sixty

10. 
_____ tens
_____ forty

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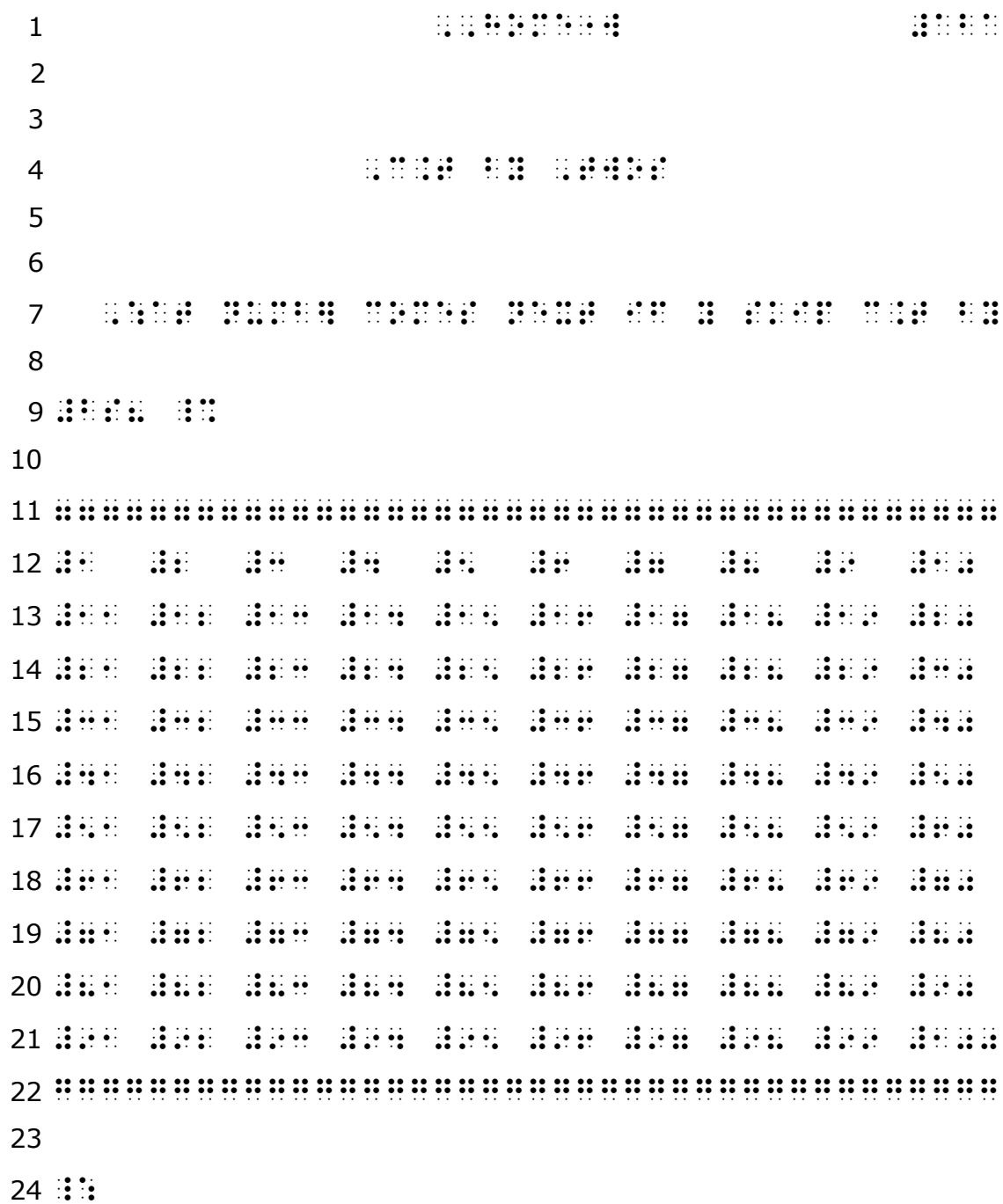
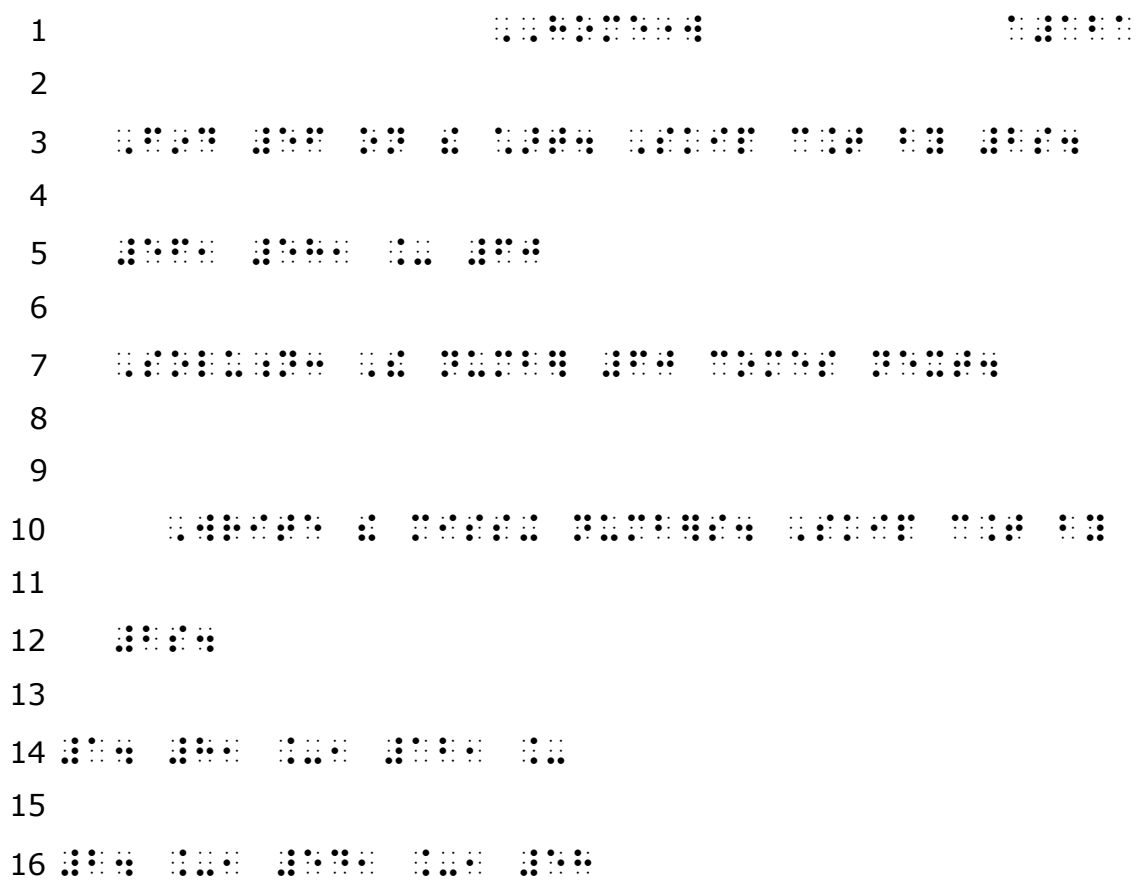


Single spacing is used within the chart because it is a 100's chart rather than specific columned data. As a 100's chart single spacing is also used to keep numbers together in rows of 10. For the young reader the numeric indicator is retained within the chart. The numbers are not aligned by place value in print, therefore, the braille follows the print. Number signs are left justified.

The opening Nemeth indicator could be placed at the beginning of the top box line, followed by a space, and the terminator at the end of the bottom box line, preceded by a space.



A transcriber’s note on the braille page or on the Transcriber's Notes page and in the Teacher’s Reference Materials should reflect that shaded answers printed above blank lines in print are placed directly after the blank line in braille.

Math Example 5

Name _____ Date _____

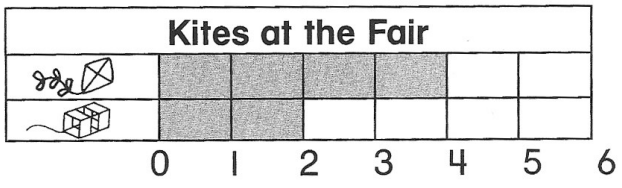
Chapter 10, Lesson 3
Homework

Make a Bar Graph

You can use a tally chart to make a bar graph.
Color one box for each tally.

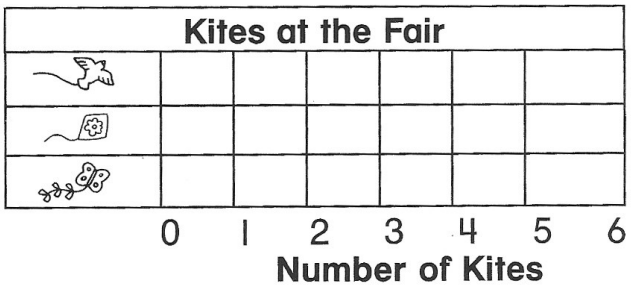
Solution:

Kites at the Fair	
	IIII
	II



Use the tally chart to make a bar graph.
Color one box for each tally.

	Kites	
1.		IIII
2.		III
3.		IIII



Spiral Review (Chapter 9, Lesson 3)

Write the number sentences and complete the table.

Whole	
8	
Part	Part
2	

4. $2 + ____ = 8$

5. $8 - 2 = ____$

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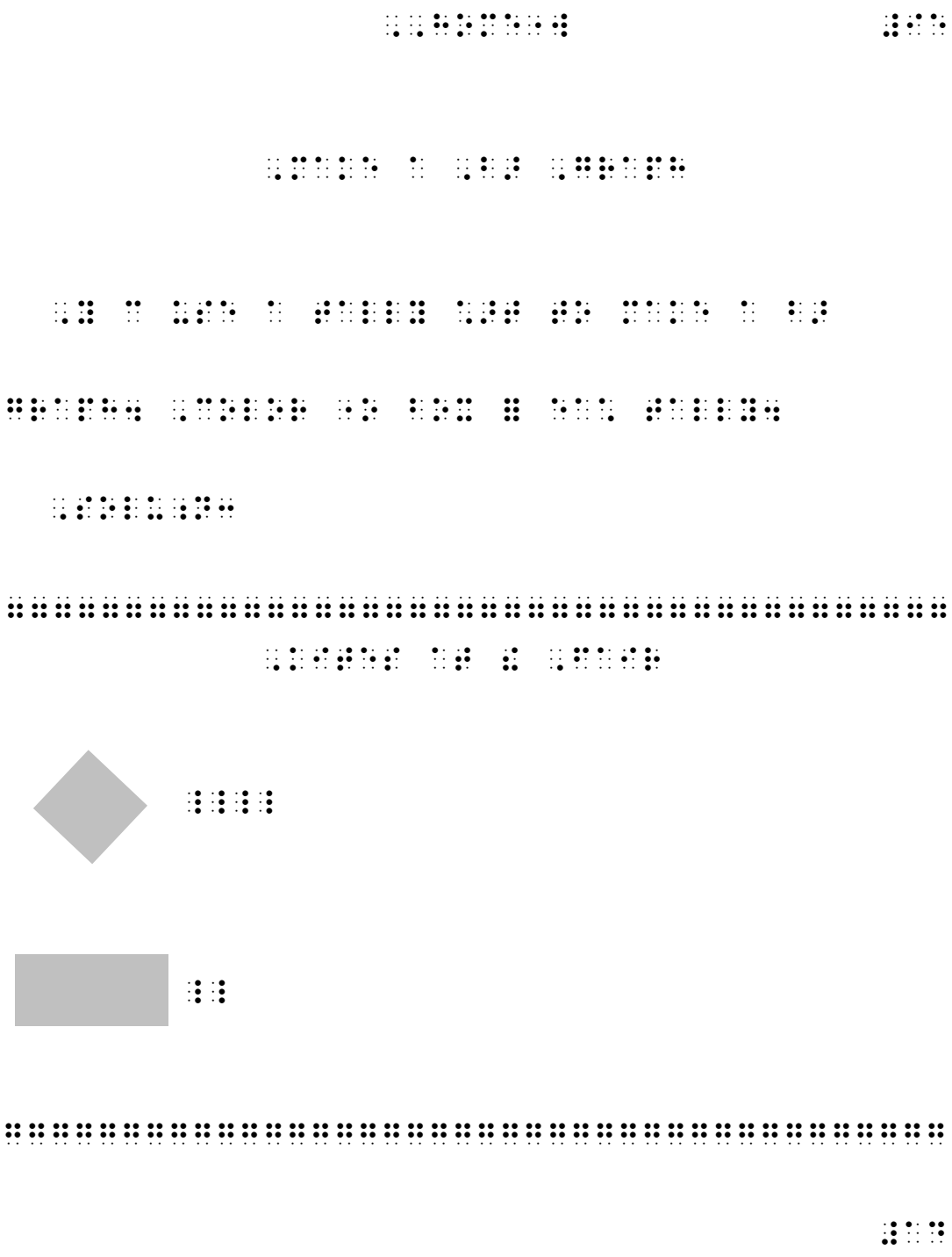
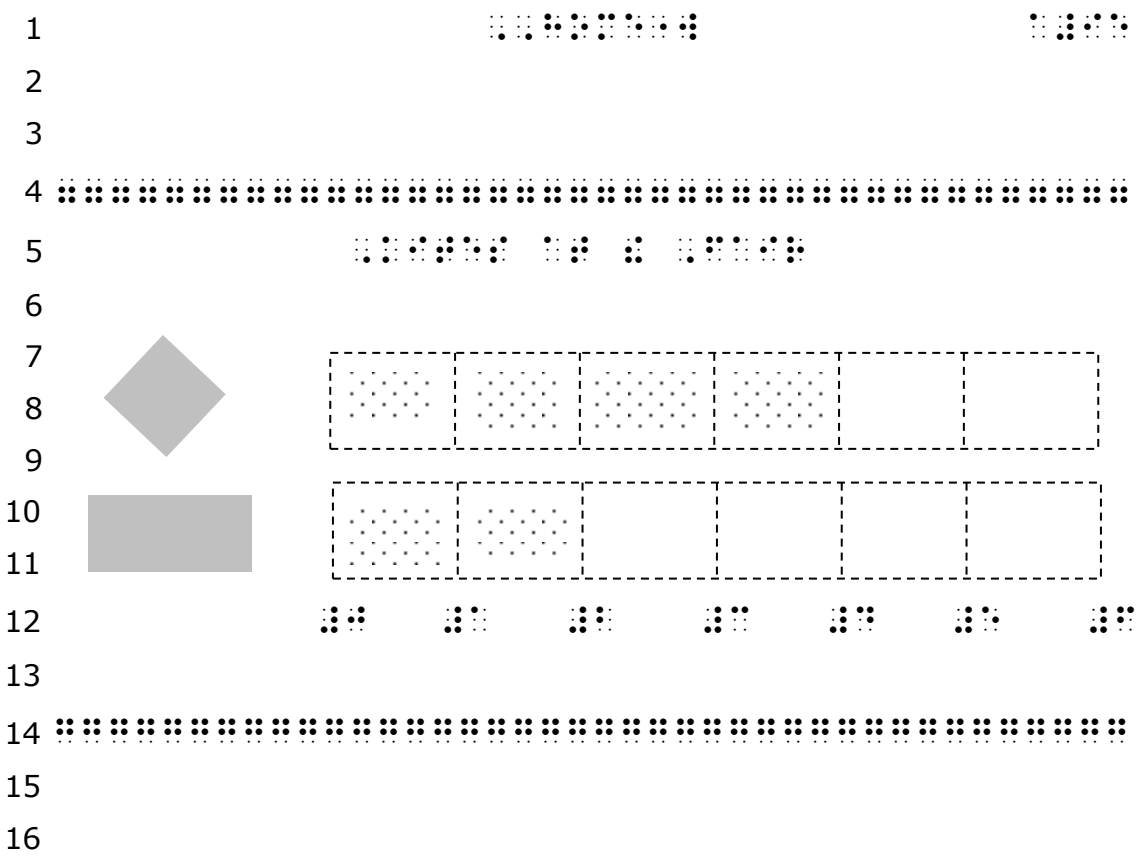


The shapes are solid tactile items, pasted on the page, therefore the blank line following them is retained. Tactiles may also be created as a shaded raised image.

Only one blank line is used before and after the chart in order to keep the chart on the same page.



Solid shapes represent pictures. The boxes are spurred for the graph, with texture in the "colored" boxes.

The numbers are labels that are part of the tactile drawing so the blank line is left below them.

Math Example 6

Name _____ Date _____

Chapter 20, Lesson 2
Homework

Count Nickels

Count by 5s. Find the value of the nickels.
Use coins if you wish.

5¢ 10¢ 15¢ 20¢ **Solution:** 20 ¢

Find the value of the nickels.

1.

___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢

2.

___ ¢ ___ ¢ ___ ¢ ___ ¢

3.

___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢ ___ ¢

Spiral Review (Chapter 19, Lesson 2)

Write the missing numbers

4. $16 - 9 = ___$
   $9 + ___ = 16$

5. $18 - 8 = ___$
   $8 + ___ = 18$

Homework 195

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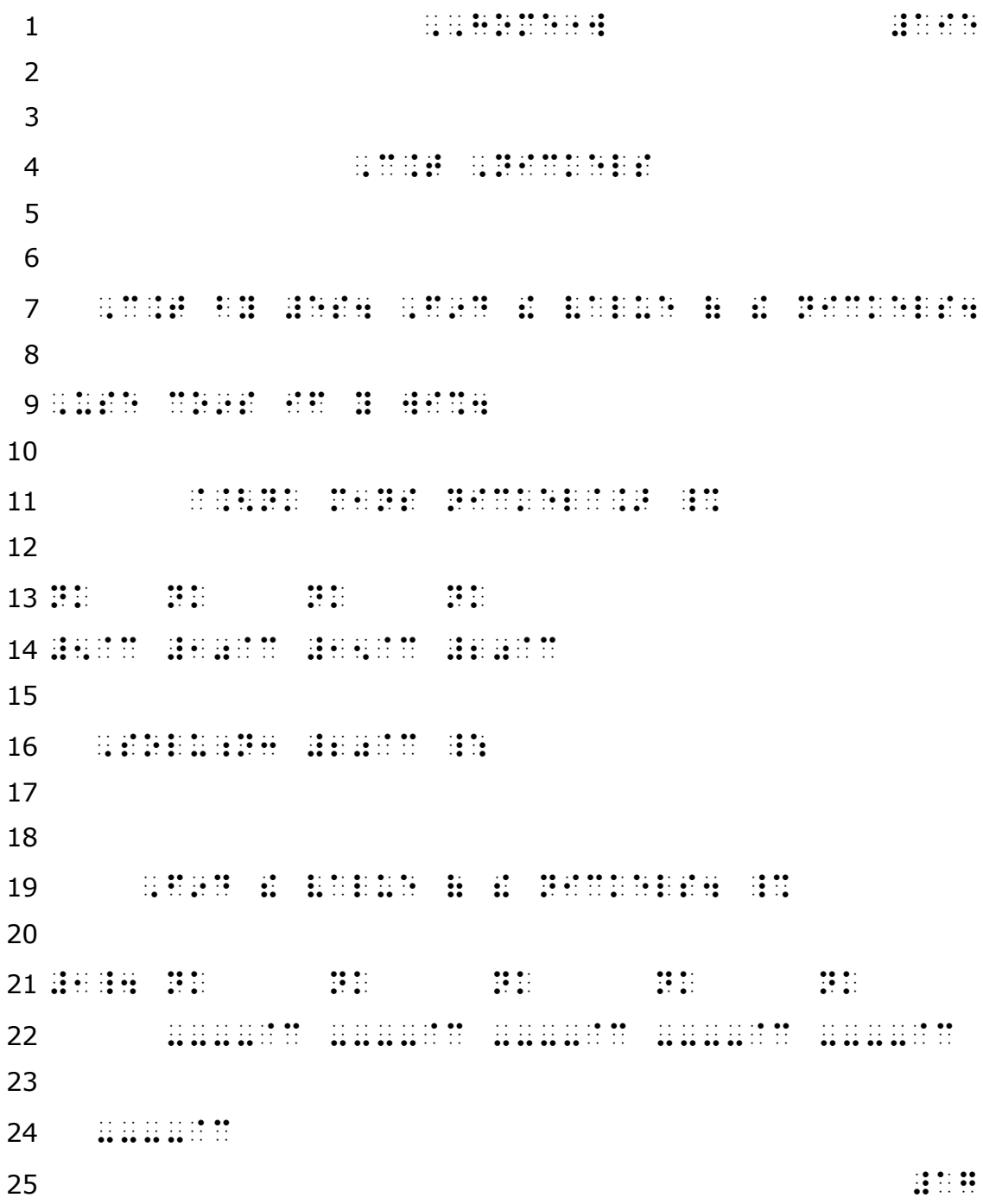
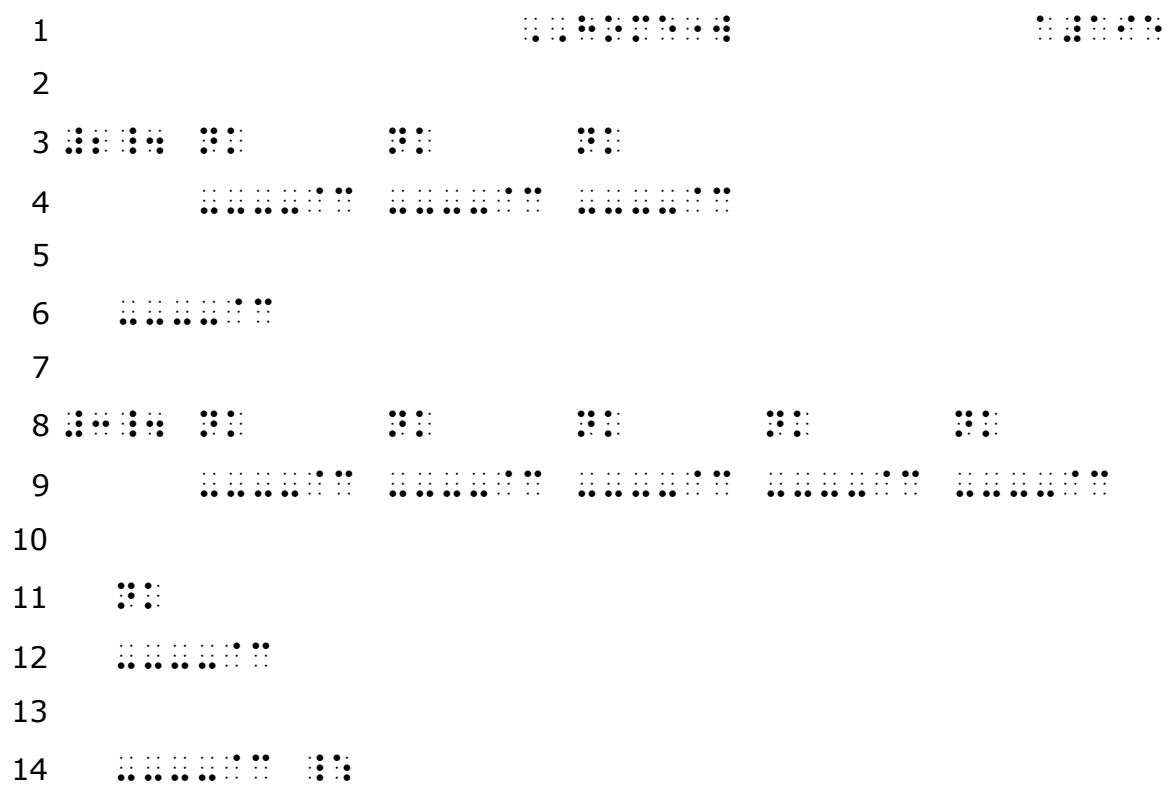


The symbol for the nickel is from the *Guidelines and Standards for Tactile Graphics, 2010*. There is no blank line between the "nickels" on the line and the values, or the counting dashes underneath the nickels, even though format is double-spaced.



Math Example 7

Name _____ Date _____

Chapter 11, Lesson 4
Leveled Problem Solving

Motion and Rhythmic Patterns

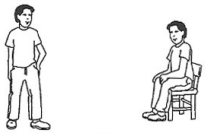
Solve.

1. Alexis hears these sounds.

What sound will she hear next?

2. Miles does these motions.

What should he do next?



3. Noah does these motions. His pattern is:

What should he do next?

_____

4. Mia hears these sounds.

What sound will she hear next?

_____

5. Mason makes this pattern.

What is next in his pattern?

_____

6. Mia makes this pattern.

What is next in her pattern?

_____

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Math Example 8

Name _____ Date _____

Chapter 22, Lesson 4
Homework

Half Hour

An hour is 60 minutes.

3:00
3 o'clock

A half-hour is 30 minutes.

3:30
half past 3

Say and write the time.

1. half past _____

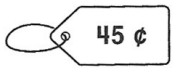
2. _____ o'clock

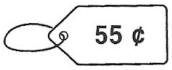
3. half past _____

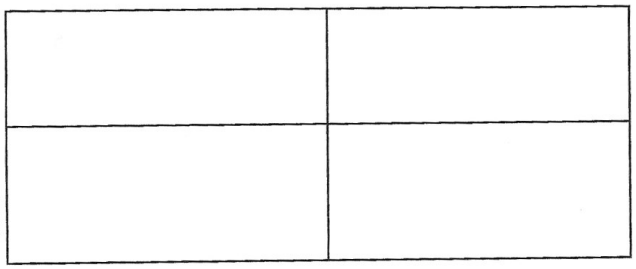
4. _____ o'clock

Spiral Review (Chapter 21, Lesson 4)

Show the amount in 2 different ways. Draw the coins.

5. 

6. 



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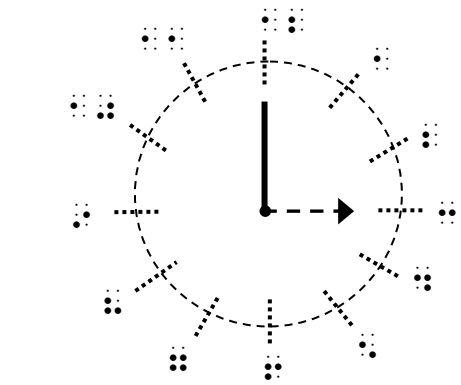
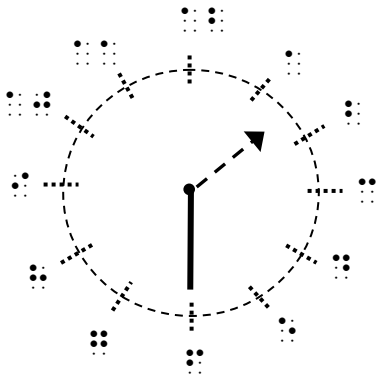


Draw clocks the same way as the clock on this page for any age level. This format is given in the *Guidelines and Standards for Tactile Graphics, 2010*.

Digital time is done in UEB unless it is involved in computation. Tactile clocks may also be done in UEB.



The answer line is placed first for clarity.

This tactile clock shows that UEB numbers may also be used.