

Texas Examinations of Educator Standards™ (TE_xES™) Program

Preparation Manual

Braille (283)



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About The Test

Test Name	Braille
Test Code	283
Time	5 hours
Number of Questions	29 selected-response questions 4 transcription assignments
Format	Paper-based Test (PBT)

The TExES Braille (283) test is designed to assess whether a test taker has the requisite braille knowledge and skills that an entry-level teacher of students who are visually impaired (TVI) in Texas public schools must possess. The 29 selected-response (multiple-choice) questions and 4 transcription assignments are based on the Braille test framework. The test may contain questions that do not count toward the score. Your final scaled score will be based only on scored questions.

The Domains

Domain	Domain Title	Approx. Percentage of Test	Standards Assessed
I.	Reading Unified English Braille (UEB) and Nemeth Code	50%	Braille VII
II.	Producing Unified English Braille (UEB) and Nemeth Code	50%	Braille VIII

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Educator Standards

Braille Standard VII

The teacher of students with visual impairments, including those with additional disabilities, knows how to read contracted and uncontracted literary braille and Nemeth Code.

Braille Standard VIII

The teacher of students with visual impairments, including those with additional disabilities, knows how to produce contracted and uncontracted literary braille and Nemeth Code.

Transitioning to Unified English Braille (UEB)

Unified English Braille (UEB) replaced English Braille American Edition (EBAE) as an official braille code of the United States on January 4, 2016. See the Braille Authority of North America (BANA) announcement at www.brailleauthority.org/ueb/implementation/statement.html.

Texas is working toward implementing the transition from EBAE to UEB. In keeping with the planned transition, this test assesses knowledge of UEB rather than EBAE. (See <http://www.tsbvi.edu/spring-2015/4351-ueb>.)

Note: The following list of domains and competencies reflects the fact that this test assesses knowledge of UEB rather than EBAE.

Domains and Competencies

The content covered by this test is organized into broad areas of content called **domains**. Each domain covers one or more of the educator standards for this field. Within each domain, the content is further defined by a set of **competencies**. Each competency is composed of two major parts:

- The **competency statement**, which broadly defines what an entry-level educator in this field in Texas public schools should know and be able to do.
- The **descriptive statements**, which describe in greater detail the knowledge and skills eligible for testing.

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Domain I – Reading Unified English Braille (UEB) and Nemeth Code

Competency 001: *The teacher of students with visual impairments, including those with additional disabilities, knows how to read UEB.*

The beginning teacher:

- A. Identifies the correct UEB transcription of text.
- B. Identifies and corrects errors in a UEB transcription.

Competency 002: *The teacher of students with visual impairments, including those with additional disabilities, knows how to read Nemeth Code.*

The beginning teacher:

- A. Identifies the correct Nemeth Code transcription of math expressions.

Domain II – Producing Unified English Braille (UEB) and Nemeth Code

Competency 001: *The teacher of students with visual impairments, including those with additional disabilities, knows how to produce UEB using a slate and stylus.*

The beginning teacher:

- A. Transcribes short selections into UEB using a 27- or 28-cell standard slate and stylus and 8½-by-11-inch paper.

Competency 002: *The teacher of students with visual impairments, including those with additional disabilities, knows how to produce UEB and Nemeth Code using a braillewriter.*

The beginning teacher:

- A. Transcribes passages into UEB.
- B. Transcribes math expressions into Nemeth Code.
- C. Demonstrates competence in referring to reference material to produce Nemeth Code.

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Knowledge of Unified English Braille (UEB) and Nemeth Code

The following is a list of the aspects of UEB and the Nemeth Code that will be assessed in the test. Aspects of UEB and Nemeth Code marked (R) will be included in the reference guide provided with the production section of the test, and will be tested only in the production section. Aspects to be tested only in the production section (but not included in the reference guide) are marked (P). In either case, aspects that are *tested* only in the production section may *appear* in the reading section but will not be *tested* there (i.e., no transcription errors involving those aspects will be introduced in the answer choices of a question in the reading section).

UEB

- A. Punctuation: period, question mark, exclamation point, comma, semicolon, colon, hyphen, quotation mark (double " " only), apostrophe, dash (long dash), ellipsis (P), forward slash (P), omission indicator/underscore/low-line symbol (R)
- B. Enclosures: Parentheses ()
- C. Other symbols: at sign/commercial at (@), percent (%), dollars (\$), cents (¢), bullet (•) (R), degrees (°) (R), ampersand (&) (R), asterisk (*) (R), plus (+), minus (-), equals (=) (R), Arabic numbers, dates with slash (e.g., 3/15/2015), time with colon (e.g., 9:15 a.m.), common fractions with fraction written vertically (e.g., $\frac{1}{2}$)
- D. Simple formats: center heading (P), paragraph indentation (P), simple list with text that goes to next line (P)
- E. Indicators and typeforms: capitalization (capital letter indicator, capitalized word indicator, capitalized passage indicator, terminator); grade 1 mode (including grade 1 indicators and the use of grade 1 mode for initials); italics typeform (symbol, word, passage, terminator)
- F. Alphabetic wordsigns: but, can, do, every, from, go, have, just, knowledge, like, more, not, people, quite, rather, so, that, us, very, will, it, you, as
- G. Strong contractions: and, for, of, the, with as wordsigns (i.e., standing alone) and groupsigns (i.e., as parts of words)
- H. Strong wordsigns: child, shall, this, which, out, still
- I. Strong groupsigns: ch, gh, sh, th, wh, ed, er, ou, ow, st, ing, ar
- J. Lower wordsigns: be, enough, were, his, in, was
- K. Lower groupsigns: ea, be, bb, con, cc, dis, en, ff, gg, in

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- L. Initial-letter contractions both as group signs and when standing alone: upon, these, those, whose, word, cannot, had, many, spirit, their, world, day, ever, father, here, know, lord, mother, name, one, part, question, right, some, time, under, young, there, character, through, where, ought, work
- M. Final-letter group signs: ound, ance, sion, less, ount, ence, ong, ful, tion, ness, ment, ity
- N. Shortforms: All 75 shortform words standing alone; rules for use of 10 special shortform words (among the 75) within a longer word: braille, great, children, blind, first, friend, good, letter, little, quick (UEB Rules 10.9.3)

Nemeth Code

- A. Signs of operation/comparison: plus (+), minus (-), multiplication cross (\times), multiplication dot (\cdot) (R), division (\div), equals (=), less than (<) (R), greater than (>) (R)
- B. Numbers and numeric mode: Arabic numbers, dates with slash (e.g., 3/15/2015), time with colon (e.g., 9:15 am), common fractions with fraction written vertically (e.g., $\frac{1}{2}$), mixed numbers (R)
- C. Grouping symbols: parentheses ()
- D. Sign of omission (R)
- E. Miscellaneous signs and symbols: percent (%), dollars (\$), cents (ϕ), degrees ($^{\circ}$) (R)
- F. Punctuation: comma, colon, decimal point, punctuation indicator
- G. Algebraic expressions and equations (R) (e.g., $2x + 3 = 12$ or $x + 3x = ?$)
- H. Geometry shape symbols and symbols of comparison: triangle (Δ) (R), square (\square) (R), angle (\angle) (R), parallel (\parallel) (R), perpendicular (\perp) (R), and congruent (\cong) (R)

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Important Information About the Braille (283) Test

For the TExES Braille test, you *must* bring the following:

- a manual (nonelectric) braillewriter that accommodates standard 11½-by-11-inch braille paper
- a 4-line, 27- or 28-cell traditional (that is, used from right to left, not a direct slate that is used from left to right) slate and stylus that accommodates 8½-by-11-inch braille paper.
- a pencil, for filling out the multiple-choice answer sheet

Please note the following important information:

- Before test day, make sure your braillewriter is functioning properly; problems caused by malfunctioning braillewriters (e.g., ghost/shadow dots) might negatively affect the scoring of your transcriptions.
- If you do not bring an appropriate braillewriter and slate and stylus with you to the test center, you will not be permitted to test.
- Because erasures detectable by touch might negatively affect the scoring of your transcriptions (i.e., they are counted as errors), it is recommended that you bring and use a braille eraser.
- Braille paper will be provided at the test center; you may not bring your own braille paper.
- All equipment is subject to inspection before being allowed into the testing room.
- For each of the four transcription assignments, you must use the device specified in the test instructions.
- You must transcribe each assignment in the braille code specified in the test instructions. Transcriptions in a braille code other than the one specified will receive a score of 0.
- Unscorable transcriptions will receive a score of 0. Unscorable transcriptions include those produced on the wrong device and unreadable transcriptions (e.g., too lightly embossed, overlapping lines of text, prevalent ghost/shadow dots, etc.).

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Approaches to Answering Multiple-Choice Questions

The purpose of this section is to describe multiple-choice question formats that you will typically see on the Braille test and to suggest possible ways to approach thinking about and answering them. These approaches are intended to supplement and complement familiar test-taking strategies with which you may already be comfortable and that work for you. Fundamentally, the most important component in assuring your success on the test is knowing the content described in the test framework. This content has been carefully selected to align with the braille knowledge required to begin a career as a teacher of students who are visually impaired.

The selected-response questions on this test are designed to assess your knowledge of the content described in the test framework.

When you are ready to respond to a multiple-choice question, you must choose one of four answer options. Leave no questions unanswered. Questions for which you mark no answer or more than one answer are counted as incorrect. Your score will be determined by the number of questions for which you select the correct answer.

The test may contain some questions that will not count toward your score.

In this test, there are two kinds of multiple-choice questions:

- “Select the Correct Transcription” questions, including Nemeth Code questions and UEB questions; and
- “UEB Error Correction” questions.

“Select the Correct Transcription” Questions

In this kind of question you are given a text statement, or a math problem or statement, in print and four simulated braille transcriptions as answer choices. You are asked to select the correct braille transcription of the print material from the four answer choices given. One of the transcriptions given as answer choices is correct. Each of the other three contains one or more transcription errors.

Example 1:

The following question tests knowledge of Braille Domain I, Competency 001: The teacher of students with visual impairments, including those with additional disabilities, knows how to read UEB.

NOTE: After clicking on a link, right click and select “Previous View” to go back to original text.

Here are some additional strategies to try if, after reading through the answer choices, you have not identified the correct transcription.

Eliminate incorrect answers. If you find any error in an answer choice, that answer choice cannot be the correct answer. When looking for errors in the answer choices, you may want to check for the following types of errors:

- a. *Rule violations.* Are any of the rules for use of certain types of contractions broken? For example, do any of the transcriptions use contractions that are correct for English Braille American Edition (EBAE) but incorrect for UEB? Do any of them spell out a word that should be contracted, use a contraction for a word that should be spelled out, or use an incorrect contraction? For instance, in Example 1, option B fails to use the required shortform for “could.”
- b. *Reversals.* Certain braille symbols are reversals (mirror images) of each other. Do any of the answer choices include symbols that are reversals of the correct symbol? In Example 1, option A uses a reversal of the “and” groupsign in “Sandy” and option C uses a reversal of the “st” groupsign in “semester.”
- c. *Spacing.* Spacing is important in braille. Does an answer choice include symbols that are not spaced correctly?
- d. *Punctuation, typeforms, and capitalization.* Even if you thought about capitalization, typeforms, and punctuation when you first read the text, it may be helpful to check for this type of error.

Identify where the answer choices differ, and focus your attention on those parts of the transcription. For example, in option A “Sandy” is transcribed differently than it is in options B, C and D. One of these two ways of transcribing “Sandy” must be incorrect. In this case, the transcription in option A is incorrect. In option B, “could” is transcribed differently than it is in options A, C and D. Again, one of those two ways of transcribing “could” must be incorrect. In this case, the transcription in option B is incorrect. Finally, in option C, “semester” is transcribed differently than it is in options A, B and D, and it is the transcription in option C that is incorrect. Option D uses the correct transcription in each of these cases, and is correct in all other respects, and **so the correct answer is option D.**

Verify your answer. Although to answer the question you only need to identify the correct transcription, you can check that your answer is correct by identifying transcription errors in each of the other answer choices.

Consult the Reference Guide. As indicated on pages 7–8, certain signs in both UEB and Nemeth are provided in the Reference Guide.

NOTE: After clicking on a link, right click and select “Previous View” to go back to original text.

Another approach is to consider each option and determine whether it both identifies an error made in the transcription *and* describes a change that would correct that error. You should not select an option that recommends a change that does not correct an error, even if the option identifies what you think is an error in the transcription. Examining the options, you should observe that options A, B and D suggest changes that *create*, rather than *correct*, errors in the transcription: Option A is incorrect because it recommends the mirror image of “in” as a part of the word “binders,” but the transcription correctly uses the lower groupsign for “in.” Option B is incorrect because it recommends the “sh” strong groupsign, but the transcription correctly uses the “th” strong groupsign. Option D is incorrect because it recommends spelling out the word “dessert,” but the transcription correctly uses the “er” strong groupsign. Therefore, **the correct answer is option C.**

Approaches to Transcription Assignments

Each transcription assignment includes detailed and specific directions, including:

- The device (slate and stylus or braillewriter) you are to use to produce the transcription
- The braille code you are to use to produce the transcription (UEB or Nemeth Code)

Each assignment will include additional instructions that are specific to the assignment. Using the wrong device will result in an unscorable transcription. Transcribing into the wrong braille code will also result in an unscorable transcription. Unscorable transcriptions will be assigned a score of 0. Failure to follow any of the other instructions will result in errors that will be counted as incorrect and so is likely to negatively affect your score on the transcription. Therefore, before beginning any of the transcription assignments, you should first make sure that you have read and understood the instructions for the assignment.

Because erasures detectable by touch are counted as errors, if you make a transcription error, consider carefully whether you should attempt to erase it or whether it would be better to restart the transcription on a new sheet of braille paper. If you need additional braille paper, it will be given to you on request. If you do decide to erase, do so as carefully and thoroughly as possible and make sure that your erasure is not detectable by touch. When erasing, it is desirable to use a braille eraser.

NOTE: After clicking on a link, right click and select “Previous View” to go back to original text.

Practice Questions

This section presents some sample test questions for you to review as part of your preparation for the test. To demonstrate how each competency may be assessed, each sample question is accompanied by the competency that it measures. While studying, you may wish to read the competency before and after you consider each sample question. Please note that the competency statements will not appear on the actual test.

An answer key follows the sample questions. For each sample test question, the answer key lists the question number and the correct answer. Please note that the answer key also lists the competency assessed by each question and that the sample questions are not necessarily presented in competency order.

The sample questions are included to illustrate the formats and types of questions you will see on the test; however, your performance on the sample questions should not be viewed as a predictor of your performance on the actual test.

Reading Nemeth Code

Questions of this type consist of a mathematical problem or expression that is shown in print and then followed by four options in simulated braille. You must choose which of the four choices (labeled A, B, C, or D) is the correct Nemeth Code transcription of the printed math problem or expression.

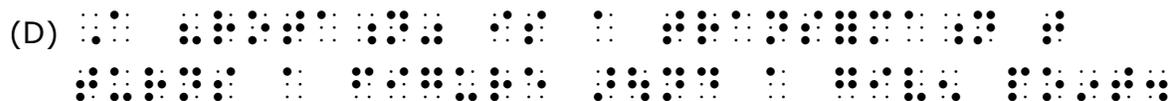
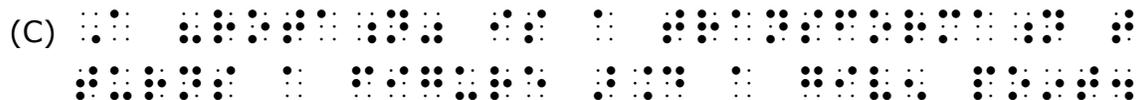
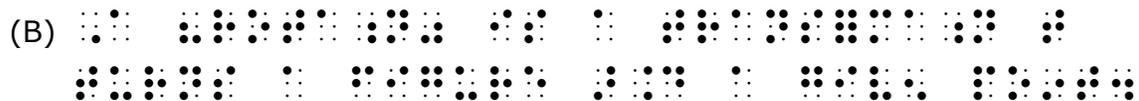
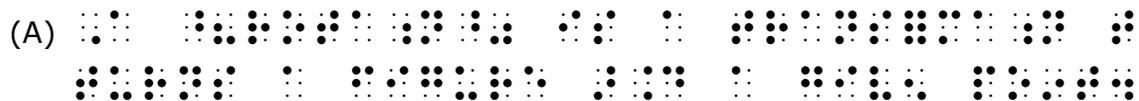
The math problems or expressions that appear in the questions are representative of the types of material that a VI teacher may be called upon to transcribe for a student with a visual impairment. Typical examples include simple addition, subtraction, multiplication, and division problems, and problems involving money or percentages.

The questions that follow are examples of this type of question.

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

DOMAIN I, COMPETENCY 001

5. A "rotation" is a transformation that turns a figure around a given point.



Answer and Rationale

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Transcription Questions

The purpose of this section is to describe the types of transcription questions that you will see on the Braille test and show test directions, a sample question, and the score scale that will be used to score your responses.

Producing UEB with a Slate and Stylus

For this section of the test, you will be asked to use a slate and stylus to transcribe a set of three brief selections into UEB.

The selections are representative of the types of information that a slate and stylus are commonly used to record. Each set of selections includes a name, address, phone number and e-mail address; a shopping list; and a brief note to a student.

Directions for Question 12

This assignment involves transcribing three selections into Unified English Braille (UEB). Your transcription must be made using a 4-line, 27- or 28-cell slate and stylus (that is, not a direct slate that is used from left to right, but a traditional slate that is used from right to left). Your slate should accommodate the 8½-by-11-inch braille paper provided by your test administrator. Transcribe each selection **exactly as written** starting at the left margin. Skip one line between selections. All three selections must be transcribed onto the same sheet of braille paper.

The three selections include

- 1) a name, address, phone number, and e-mail address;
- 2) a shopping list; and
- 3) a note to a student from a teacher.

Errors that will be counted as incorrect in your transcription include

- contractions, indicators, or shortforms omitted or misused;
- characters misformed (including added or omitted dots);
- characters omitted or extra ones inserted (including hyphenation of words not hyphenated in the text);
- words omitted or repeated;
- indicators or punctuation marks omitted or misused or extra ones inserted;
- spacing errors (including improper spacing between words, lines, or selections);
- formatting errors (including improper line breaks or margins); and
- erasures detectable by touch.

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

If you need additional braille paper, notify your test administrator. When you have completed your final version of the transcription, check the appropriate box at the bottom of the page containing your final version. **Your score for this assignment will be based solely on the version of your transcription that you designate as the final version.**

Sample Question

DOMAIN II, COMPETENCY 001

12. Use a slate and stylus to transcribe the following selections into Unified English Braille (UEB). Transcribe the selections exactly as written. Skip one line between selections. Transcribe all selections onto the same sheet of paper.

J. W. Smith
8590 Main Avenue North
Austin, Texas 78743
(214) 555-8983
smith99@mail.net

apples
bread
chocolate milk
coffee beans
ground beef

Excellent work!
Your answer was concise.

Answer Key

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Producing UEB with a Braillewriter

For this section of the test, you will be presented with a short (80–100 word) passage to transcribe into contracted braille using a manual (nonelectric) braillewriter.

The passage will be representative of the type of instructional material that a teacher of the visually impaired may be called upon to transcribe into braille for a student who has a visual impairment. The passage might contain an analysis of a poem, a description of a scientific process, an assignment related to an English or history unit, directions for a class project, or similar instructional materials.

Directions for Question 13

This assignment involves transcribing a passage into UEB. Your transcription must be made using a manual (nonelectric) braillewriter that can accommodate the 11½-by-11-inch braille paper provided by your test administrator. Use a 40-cell line and make maximum use of each line. Do not hyphenate words unless they are hyphenated in the text. The final version of your completed transcription must fit on a single sheet of braille paper.

Errors that will be counted as incorrect in your transcription include

- contractions, indicators, or shortforms omitted or misused;
- characters misformed (including added or omitted dots);
- characters omitted or extra ones inserted (including hyphenation of words not hyphenated in the text);
- words omitted or repeated;
- indicators or punctuation marks omitted or misused or extra ones inserted;
- spacing errors (including improper spacing between words or lines);
- formatting errors (including improper line breaks and margins); and
- erasures detectable by touch.

If you need additional braille paper, notify your test administrator. When you have completed your final version of the transcription, check the appropriate box at the bottom of the sheet containing your final version. **Your score for this assignment will be based solely on the version of your transcription that you designate as the final version.**

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Sample Question

DOMAIN II, COMPETENCY 002

13. Use a braillewriter to transcribe the following passage into UEB. Use a 40-cell line and make maximum use of each line. Do not hyphenate words unless they are hyphenated in the text. The final version of your completed transcription must fit on a single sheet of braille paper.

Growing Orchids

An interesting hobby that several friends and I have undertaken at home is growing orchids. Orchids are beautiful and, although they appear to be very delicate, they are in fact quite hardy. My favorite and the easiest to grow is Phalaenopsis. They come in a variety of colors and will bloom for months and months at a time! The Phalaenopsis is a low-light orchid, making it a good choice for anyone who does not have a window with direct sunlight. To learn more about growing orchids at home visit the Orchid Growers' Association web site at <http://www.orchidgrowers.org/>.

Answer Key

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Producing Nemeth Code with a Braillewriter

For this transcription assignment, you will be presented with a math worksheet to transcribe into Nemeth Code using a manual (nonelectric) braillewriter.

The worksheet will contain problems and statements that are representative of the type of material that a TVI may be called upon to transcribe into Nemeth Code for a student who has a visual impairment. See the section Knowledge of Unified English Braille (UEB) and Nemeth Code (pages 7-8) for detailed information. Note that you are asked only to transcribe the worksheet, not to solve any of the problems.

Directions for Question 14

This assignment involves transcribing a set of mathematical problems and statements into Nemeth Code. Your transcription must be made using a manual (nonelectric) braillewriter that can accommodate the 11½-by-11-inch braille paper provided by your test administrator. Include all punctuation marks. Skip one line between problems. The final version of your completed transcription must fit on a single sheet of braille paper.

Remember: You are NOT to transcribe this set of mathematical problems and statements into Unified English Braille (UEB); you MUST transcribe them into Nemeth Code. All problem numbers must be brailled in Nemeth Code as well. Do not include any switch indicators in your transcription.

Errors that will be counted as incorrect in your transcription include

- characters, numerals, or symbols misformed (including added or omitted dots);
- characters, numerals, or symbols omitted or misused or extra ones inserted;
- characters, numerals, or symbols in the number of the problem omitted or misused or extra ones inserted;
- indicators, punctuation marks, composition signs, or the general omission symbol omitted or misused or extra ones inserted;
- spacing errors;
- formatting errors; and
- erasures detectable by touch.

If you need additional braille paper, notify your test administrator. When you have completed your final version of the transcription, check the appropriate box at the bottom of the page containing your final version. **Your score for this assignment will be based solely on the version of your transcription that you designate as the final version.**

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Sample Question

DOMAIN II, COMPETENCY 002

14. Transcribe the following mathematical problems and statements using Nemeth Code. Include all punctuation marks. Skip one line between problems. DO NOT SOLVE ANY OF THE PROBLEMS.

1. $7¢ - 4¢ = 3¢$

2. 3/16/2017

3. $54 - 36 = 18$

4. $\frac{3}{5} \div \frac{4}{7}$

5. 8:25 pm

6. $6(9 + 2) = 6 \times 9 + 6 \times 2$

Answer Key

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Producing Nemeth Code with a Braillewriter and Reference Guide

For this transcription assignment, you will be presented with an additional math worksheet to transcribe into Nemeth Code using a manual (nonelectric) braillewriter. This one will call upon material in the Nemeth Code section of the Reference Guide.

Like the previous Nemeth Code transcription assignment, the worksheet for this assignment will contain problems and statements that are representative of the type of material that a TVI may be called upon to transcribe into Nemeth Code for a student who has a visual impairment. Algebra and geometry problems may be included in this assignment. See the section Knowledge of Unified English Braille (UEB) and Nemeth Code (pages 7-8) for detailed information. Note that you are asked only to transcribe the worksheet, not to solve any of the problems.

Directions for Question 15

This assignment involves transcribing a set of mathematical problems and statements into Nemeth Code. Your transcription must be made using a manual (nonelectric) braillewriter that can accommodate the 11½-by-11-inch braille paper provided by your test administrator. Some of the symbols needed for this assignment can be found in the Reference Guide. Include all punctuation marks. Skip one line between problems. The final version of your completed transcription must fit on a single sheet of braille paper.

Remember: You are NOT to transcribe this set of mathematical problems and statements into Unified English Braille (UEB); you MUST transcribe them into Nemeth Code. All problem numbers must be brailled in Nemeth Code as well. Do not include any switch indicators in your transcription.

Errors that will be counted as incorrect in your transcription include

- characters, numerals, or symbols misformed (including added or omitted dots);
- characters, numerals, or symbols omitted or misused or extra ones inserted;
- characters, numerals, or symbols in the number of the problem omitted or misused or extra ones inserted;
- indicators, punctuation marks, composition signs, or the general omission symbol omitted or misused or extra ones inserted;
- spacing errors;
- formatting errors; and
- erasures detectable by touch.

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

If you need additional braille paper, notify your test administrator. When you have completed your final version of the transcription, check the appropriate box at the bottom of the sheet containing your final version. **Your score for this assignment will be based solely on the version of your transcription that you designate as the final version.**

Sample Question

DOMAIN II, COMPETENCY 002

15. Use a braillewriter to transcribe the following mathematical problems and statements into Nemeth Code. Some of the symbols needed for this assignment can be found in the Reference Guide. Transcribe the problems and statements exactly as written. Skip one line between problems. Transcribe all expressions onto the same sheet of braille paper. DO NOT SOLVE ANY OF THE PROBLEMS.

1. $30.5^\circ < 31^\circ$

2. $4(y - ?) = 4y - 8$

3. $\triangle ABC \cong \triangle DEF$

4. $2\frac{1}{3} \cdot 9\frac{5}{8} > 22$

Answer Key

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Reference Guide for Selected Braille Symbols

The following reference guide will be provided for all transcription assignments.

Part 1: UEB

Description	Symbol		Example	
	Print	UEB	Print	UEB
Ampersand	&	⠠⠠⠠	A & B	⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠⠠
Asterisk	*	⠠⠠⠠	Text*	⠠⠠⠠⠠⠠⠠⠠⠠
Bullet	•	⠠⠠⠠	<ul style="list-style-type: none"> Task A Task B 	⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠
Degree sign	°	⠠⠠⠠	45°	⠠⠠⠠⠠⠠⠠
Equals	=	⠠⠠⠠	1 + 1 = 2	⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠
Low-line (underscore)	—	⠠⠠⠠	We saw ___ and ___.	⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠⠠⠠

Part 2: Nemeth Code

Description	Symbol		Example(s)	
	Print	Nemeth Code	Print	Nemeth Code
Degree sign	°	⠠⠠⠠	45°	⠠⠠⠠⠠⠠⠠⠠⠠
Multiplication dot	·	⠠⠠	4 · 5	⠠⠠⠠⠠⠠⠠
Less than	<	⠠⠠⠠	4 < 5	⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠
Greater than	>	⠠⠠⠠	5 > 4	⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠
Mixed number indicators	N/A	⠠⠠⠠ ⠠⠠⠠	3 $\frac{4}{5}$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
Triangle	△	⠠⠠⠠	△ <i>RST</i>	⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠
Square	□	⠠⠠⠠	□ <i>RSTU</i>	⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
Angle	∠	⠠⠠⠠	∠ <i>RST</i>	⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Description	Symbol		Example(s)	
	Print	Nemeth Code	Print	Nemeth Code
Parallel		⠠⠨⠨	$AB \parallel CD$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
Perpendicular	⊥	⠠⠨⠠	$AB \perp CD$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
Congruent	≅	⠠⠠⠠⠠⠠⠠	$\angle A \cong \angle B$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
Sign of omission (used to represent a question mark or a space)	N/A	⠠	$5 - ? = 3$ or $5 - \quad = 3$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
Algebraic expressions and equations (5 examples)	N/A		$2x - 5y = 16$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
			$(3x - 2)(4x + 5)$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
			$7(x - 4) = 7x - 28$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
			$4x + 3 = 9$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠
			$5y - 2y = ?$	⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

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Score Scales for the Transcription Questions

Your response to each of the transcription assignments will be scored based on the number of transcription errors you make.

The score scale shown below will be used to score the Producing UEB with a Slate and Stylus assignment and the Producing Nemeth Code with a Braillewriter assignment.

Score Point	Score Point Description
4	3 or fewer errors
3	4–7 errors
2	8–11 errors
1	12 or more errors
0	Blank or unscorable

The score scale shown below will be used to score the Producing UEB with a Braillewriter assignment and the Producing Nemeth Code with a Braillewriter and Reference Guide assignment.

Score Point	Score Point Description
4	2 or fewer errors
3	3–5 errors
2	6–8 errors
1	9 or more errors
0	Blank or unscorable

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Answer Key for Selected-Response Questions

Question Number	Domain and Competency	Correct Answer	Rationale
1	I, 002	D	<p>Option D is correct because it is the correct transcription. Option A is incorrect because the numbers are not Nemeth Code numbers but are UEB numbers, and because the UEB decimal point is used instead of the Nemeth Code decimal point. Option B is incorrect because the percent symbol is incorrect; it should be dots 4, 3-5-6. Option C is incorrect because the percent symbol is incorrect; it should be dots 4, 3-5-6 rather than dots 4, 2-5-6.</p> <p>Back to Question</p>
2	I, 002	C	<p>Option C is correct because it is the correct transcription. Option A is incorrect because the division symbol is incorrect; it should be dots 4-6, 3-4 rather than dots 3-4. Option B is incorrect because the minus symbol is incorrect; it should be dots 3-6 rather than dots 6, 3-6. Option D is incorrect because the number 14 is misformed as the number 10.</p> <p>Back to Question</p>

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Question Number	Domain and Competency	Correct Answer	Rationale
3	I, 001	D	<p>Option D is correct because it is the correct transcription. Option A is incorrect because "sion" (a final-letter groupsign) in "permission" is incorrect; it should be dots 4-6, 1-3-4-5. Option B is incorrect because "before" (a shortform word) is incorrect; it should be dots 2-3, 1-2-4. Option C is incorrect because a question mark is used instead of an exclamation point; it should be dots 2-3-5.</p> <p>Back to Question</p>
4	I, 001	A	<p>Option A is correct because it is the correct transcription. Option B is incorrect because the @ sign is incorrect; it should be dots 4, 1. Option C is incorrect because the hyphen between "e" and "mail" is incorrect; it should be dots 3-6. Option D is incorrect because the hyphen between "e" and "mail" is incorrect and should be dots 3-6, and because the @ sign is misformed and should be dots 4, 1.</p> <p>Back to Question</p>

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Question Number	Domain and Competency	Correct Answer	Rationale
5	I, 001	B	<p>Option B is correct because it is the correct transcription. Option A is incorrect because dots 4-5 should not be used before the opening and closing quotation marks. These should be non-specific quotation marks: dots 2-3-6 for the opening quotation mark and dots 3-5-6 for the closing quotation mark. Option C is incorrect because in the word "transformation," the strong contraction for "for" (dots 1-2-3-4-5-6) should be used. Option D is incorrect because in the word "around," the final-letter groupsign for "ound" (dots 4-6, 1-4-5) should be used.</p> <p>Back to Question</p>
6	I, 001	D	<p>Option D is correct because it is the correct transcription. Option A is incorrect because in the word "science," the "ence" (a final-letter groupsign) should be dots 5-6, 1-5. Option B is incorrect because "which" (a strong wordsign) is incorrect; it should be dots 1-5-6. Option C is incorrect because "gh" (a strong groupsign) in "light" is incorrect; it should be dots 1-2-6.</p> <p>Back to Question</p>

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Question Number	Domain and Competency	Correct Answer	Rationale
7	I, 001	C	<p>Option C is correct because it is the correct transcription. Option A is incorrect because the final-letter groupsign for "ment" (dots 5-6, 2-3-4-5) should be used in "commencement." Option B is incorrect because the initial-letter contraction for "day" (dots 5, 1-4-5) should be used in "Saturday."</p> <p>Option D is incorrect because it omits the required numeric indicator sign (dots 3-4-5-6) after the colon in the time "2:30."</p> <p>Back to Question</p>
8	I, 001	A	<p>Option A is correct because it is the correct transcription. Option B is incorrect because the initial-letter contraction should be used for "there" (dots 5, 2-3-4-6). Option C is incorrect because "in" (a lower wordsign) is misformed as "en"; it should be dots 3-5. Option D is incorrect because "during" uses the "in" contraction instead of the required strong groupsign "ing" (dots 3-4-6).</p> <p>Back to Question</p>

NOTE: After clicking on a link, right click and select "Previous View" to go back to original text.

Question Number	Domain and Competency	Correct Answer	Rationale
9	I, 001	D	<p>Option D is correct because it is the correct transcription. Option A is incorrect because "said" (a shortform word) should be dots 2-3-4, 1-4-5. Option B is incorrect because "er" (a strong groupsign) should be contracted in "verb" using dots 1-2-4-5-6. Option C is incorrect because "of" (a strong contraction) is misformed as "with"; it should be dots 1-2-3-5-6.</p> <p>Back to Question</p>
10	I, 001	B	<p>Option B is correct because the word "teacher" should use the "ea" lower groupsign and the "er" strong groupsign. Option A is incorrect because it recommends spelling out the word "reminded" instead of using the "in" lower groupsign and the "ed" strong groupsign. Option C is incorrect because it recommends the strong groupsign "gh" but the transcription incorrectly uses the "ar" strong groupsign. Option D is incorrect because it recommends the strong groupsign "ch" but the transcription correctly uses the "st" strong groupsign.</p> <p>Back to Question</p>

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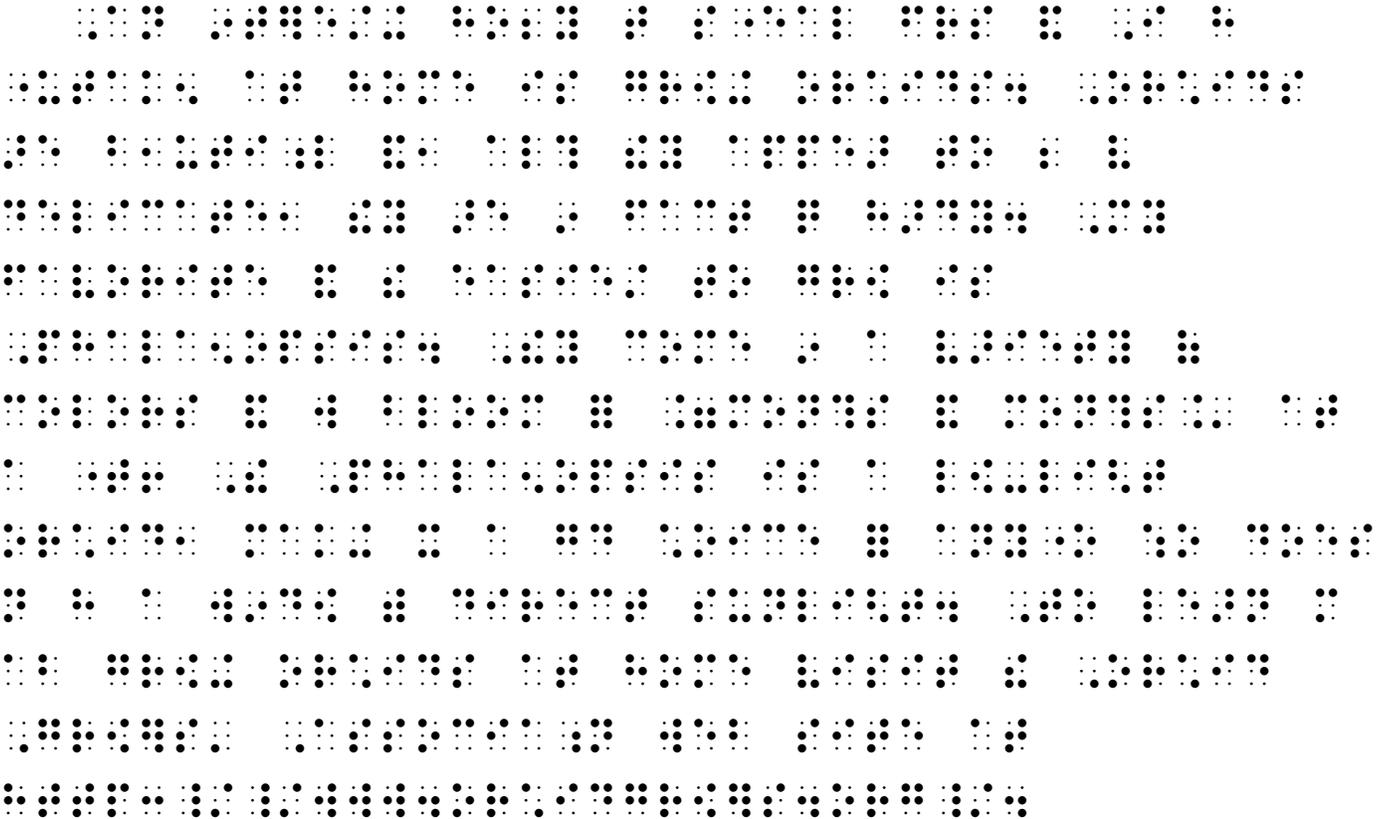
Question Number	Domain and Competency	Correct Answer	Rationale
11	I, 001	C	<p>Option C is correct because the word "their" should use the initial-letter contraction, but instead uses the contraction for "there." Option A is incorrect because it recommends spelling out the word "about" but the transcription correctly uses the shortform "ab". Option B is incorrect because it recommends spelling out the "ed" in the word "editing" but the transcription correctly uses the "ed" strong group sign. Option D is incorrect because it recommends a misplaced dot that changes the "ar" to an "s", but the transcription correctly uses the "ar" strong group sign.</p> <p>Back to Question</p>

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Question Number	Domain and Competency	
13	II, 002	

Correct Transcription





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Question Number	Domain and Competency	
15	II, 002	

Correct Transcription

15. The number of students who are in the 10th grade and are taking the course is 100. The number of students who are in the 11th grade and are taking the course is 150. The number of students who are in the 12th grade and are taking the course is 200. The number of students who are in the 13th grade and are taking the course is 250. The number of students who are in the 14th grade and are taking the course is 300. The number of students who are in the 15th grade and are taking the course is 350. The number of students who are in the 16th grade and are taking the course is 400. The number of students who are in the 17th grade and are taking the course is 450. The number of students who are in the 18th grade and are taking the course is 500. The number of students who are in the 19th grade and are taking the course is 550. The number of students who are in the 20th grade and are taking the course is 600.

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Preparation Resources

The resources listed below may help you prepare for the TExES Braille test. These preparation resources have been identified by Braille experts and TVIs to provide up-to-date information that relates to UEB and Nemeth Code. Most of these resources can be found on the Web site of the Braille Authority of North America (BANA) at www.brailleauthority.org and <http://www.brailleauthority.org/ueb.html>. Except where otherwise noted, the materials can be downloaded at no cost.

UEB Rulebook, Second Edition, 2013

The Rulebook can be downloaded from the Web site of the International Council on English Braille (ICEB), <http://www.iceb.org/ueb.html>, or from the BANA Web site previously noted.

This link will take you to three different versions of the Rulebook. A simple .pdf version is suitable for printing; the "linked pdf" is ideal for downloading to a computer or a tablet, as the live links in the document can help you navigate electronically. There is also a "braille ready" (.brf) version in six volumes.

Printable one-page resource lists

- Duxbury has a one-page chart that lists the contractions and symbols in alphabetical order; it can be downloaded in .pdf format from http://duxburysystems.com/images/ueb_black.pdf.
- Aroga Technologies presents the UEB contractions and symbols by category; this chart can be downloaded in .pdf format from <http://www.aroga.com/unified-english-braille-chart-tabloid-11-x-17-pdf-format/>.

Burns Braille Guide: A Quick Reference to Unified English Braille, Second Edition

This reference guide includes common braille-to-print and print-to-braille conversions, as well as punctuation, UEB contractions, and general rules and terminology. It is available for purchase in print or various electronic formats from AFB Press: <http://www.afb.org/store>.

UEB Online

This self-paced, free online course teaches Unified English Braille from the very beginning. Starting with the alphabet, its 31 lessons presented in two modules take the learner through the UEB code. The course was developed by the Renwick Centre in New South Wales, Australia, and is available on this Web site: <http://uebonline.org>.

Nemeth Code for Mathematics & Science Notation, 1972 Revision (plus additional revisions)

An electronic copy of the official rule book for Nemeth Code is available in .pdf and .brf versions from the BANA Web site,
<http://www.brailleauthority.org/mathscience/math-science.html>.

The book is also available for purchase in print or in braille from the American Printing House for the Blind (APH):
https://shop.aph.org/webapp/wcs/stores/servlet/Product_Nemeth%20Code%20for%20Mathematics%20and%20Science%20Notation,%201972%20Revision_20435582P_10001_11051.

Learning the Nemeth Braille Code: A Manual for Teachers and Students, 1987

This resource manual written by Ruth Craig is available for purchase from APH (www.aph.org) and is also available as a free download in .brf format on the BANA Web site:
<http://www.brailleauthority.org/mathscience/learningnemeth1987.brf>.

Consult the BANA Web site for updates to Nemeth Code that occurred after this book was published.

The BANA Web site also provides resources specifically aimed at professionals who are making the transition from *English Braille American Edition* (EBAE) to Unified English Braille. These resources can be found at <http://www.brailleauthority.org/ueb.html> and include:

The ABCs of UEB

Written by Constance Risjord, this document describes major differences between EBAE and UEB and includes examples and practice exercises. Available in HTML, .pdf, and .brf versions.

Update to UEB

This manual accompanies the CNIB Transcriber's UEB Course. Available in .pdf, .doc, .brf, and .dxb formats via the BANA page or directly via the following locations (depending on required format):

PDF:

<http://www.inca.ca/en/living/braille/Transcriber%20Update/Transcriber%20update.pdf>

Word:

<http://www.inca.ca/en/living/braille/Transcriber%20Update/Transcriber%20update.docx>

BRF:

<http://www.inca.ca/en/living/braille/Transcriber%20Update/Transcriber%20update%20-%20braille%20edition.brf>

DXB:

<http://www.inca.ca/en/living/braille/Transcriber%20Update/Transcriber%20update%20-%20braille%20edition.dxb>

Course information is available at

<http://www.cnib.ca/en/living/braille/Pages/Braille-Courses.aspx>.

Unified English Braille Australian Training Manual 2014

This manual is a series of lessons and practice exercises and is available in .pdf and .brf formats at <http://printdisability.org/guidelines/unified-english-braille-australian-training-manual-2013/>. There is also a New Zealand variation available at <http://banzat.org.nz/BrailleCodes.htm>.

ORGANIZATIONS

Lighthouse Guild — www.lighthouse.org

Texas School for the Blind and Visually Impaired — www.tsbvi.edu

Central Association for the Blind and Visually Impaired — www.cabvi.org