

Adding and Subtracting Radical Expressions

Nemeth symbols and concepts addressed:

- Radical expression
- Square root
- Index
- Index-of-radical indicator
- Radical symbol ($\sqrt{\quad}$)
- Radicand
- Termination indicator
- Juxtaposition
- Like radical terms
- Distributive property

Prerequisites:

The following Nemeth symbols and concepts will be addressed in this lesson, but they will not be thoroughly explained, so the student should be already skilled in these areas prior to starting this lesson:

- Operation signs
- Parentheses
- Equals sign

Objectives:

The student will be able to:

- 1) Define the terms: radical expression, radical symbol, index, radicand, square root, juxtaposition, like radical terms, and the distributive property
- 2) Write radical expressions where a number is followed by a radical expression
- 3) Read radical expressions where a number is followed by a radical expression
- 4) Write problems where radical expressions are added or subtracted
- 5) Read problems where radical expressions are added or subtracted

Teaching tips:

- Before opening any BRF files in Duxbury, go into the Global menu. Select "Formatted Braille Importer" and then check the box for "Read

formatted braille without interpretation" at the top of the window. This will ensure that nothing is changed when opening the BRF files.

- In addition to the embedded activities within the focused lesson, there is one follow-up activity.
- When reading long problems to students, be sure to pause frequently to allow the student to finish brailleing each section of a problem before moving on to the next section. At a minimum, pause after each end root.
- The C braille document may be used to supplement the print copy of the lesson since it contains all of the examples and equations in braille. For example, the distributive property in this lesson is included in the C braille document.
- The answers for the follow-up activity are available in SimBraille and braille. Please note that these are not formatted in cell 1 with run-overs in cell 3 since the word "Answer" is included.
- If needed, remind the student to check his/her work during writing activities.
- You may want to have the student practice reading a number followed by a radical expression and/or problems where radical expressions are added or subtracted as well. This can be done by using the answer key.