

1.10 Skill Builder: Simplifying Equations Involving Exponents

Specific Expectations

- OC1.08(U) simplify and evaluate expressions containing integer and rational exponents, using the laws of exponents

Text Page 83

Time Required Functions and Relations: 115 min

Time Required Functions: 75 min

Overview

- Apply the laws of exponents through diagnosis, practice, assessment, and remediation.

Prior Learning

- adding, subtracting, and multiplying fractions
- interpreting negative exponents
- interpreting zero as an exponent
- following rules for finding the product or the quotient of powers with the same base
- simplifying a power raised to an exponent
- interpreting rational exponents
- inserting brackets to indicate the order of operations
- using radicals as an alternative to fractional exponents

Suggestions for Support

- Plan for several short practice sessions rather than one long session.
- Encourage students to refer to the table in the textbook at first but then to work independently as soon as possible.
- Invite students to join a group where they can self-assess using software or answer prepared questions as soon as they feel capable. Students experiencing difficulty may choose to join this group after they have had some extra practice.

Questions with a Functions and Relations Focus:

1–2, 4–6, 10–20

Questions with a Functions Focus:

1–10, 13–17