What is in a fluency practice activity set?

Component of mathematical fluency reflected in the fluency connection

Mathematical topic and grade level for this set of fluency practice activities

Specific fluency practice activity title

Teacher notes describing how to facilitate each activity with students and any needed materials

Tasks provided to use as prompts for this activity

Fluency Practice: Laws of Exponents, Algebra I

Fluency Connection:

A fluent student can quickly rewrite expanded expressions in simplified form.

Fluency Practice: Simplifying Expanded Notation

Say: We will practice using our understanding of expanded notation to simplify expressions involving the laws of exponents. I will show you an expression written in expanded form, and you will write the simplified expression on your whiteboard. For example, if I display $\frac{b \cdot b \cdot c}{a^2 \cdot a \cdot a \cdot b \cdot c \cdot c \cdot c}$, you would write $\frac{b}{a^2 \cdot c}$ on your whiteboard.

Possible expressions:

b-b-b-b-b-b-b-b b-b-b

(c-c-c-c)-(c-c-c-c)

a.a.a.a.a.a.b.b.b a.a.a.a.a.a 1 a.a.a.a.a.a.a.a a.a.a 1

Notes:

Fluency Practice: Laws of Exponents, Algebra I

Simplifying Expanded Notation

Title of fluency practice activity

b • b • b • b • b • b • b

b • b • b

Space for teachers to record notes related to this activity, including implementation ideas, materials, student progress monitoring, etc.

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Up to two tasks per display page

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