

Applet Overview: Algebraic Expressions - Number Line Model for Multiplication

Essential Math Concept

- Understanding, evaluating, and representing algebraic expressions on visual models.

Essential Questions To Consider

- Can students represent an algebraic expression that includes multiplication on a number line model?
- Can students predict changes in the model as the value of the variables in an expression changes?

Student Engagement

Step 1: The *Algebraic Expressions – Number Line Model for Multiplication* applet provides examples of expressions with various variable names. The tool is also designed to evaluate the given expression with a number of different quantities. Expressions can also be shown in a variety of notations.

- Check the **Expression** checkbox to see the expression.
- Move the slider next to the **Expression** checkbox to see a coefficient multiplied by a variable..
- Move the **Variable** slider to change the variable name.

Algebraic Expressions: Number Line Model for Multiplication

Expression —●— $2m$

Variable —●— $2(3)$

Evaluate if:

m = 3 —●— 6

coefficient = 2 —●—

Step 2: Check the **Model** checkbox to see the expression represented on a number line. Check the **Explain** checkbox to see an explanation of the model with the value and coefficient selected.

