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

<u>Step 1:</u> 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 → Variable → ✓ Evaluate if: m = 3 → coefficient = 2 →	2m 2(3) 6	Change notation

<u>Step 2:</u> 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.



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