## **Applet Overview: Algebraic Expressions**

## **Essential Math Concept**

- Understanding and evaluating variables in algebraic expressions.

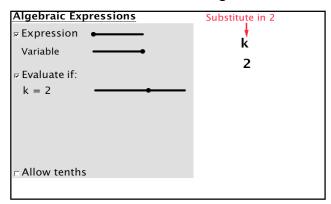
## **Essential Questions To Consider**

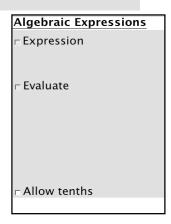
- Do students understand that variables can be used for a unique unknown value [like  $2 + \square = 12$  or 2 + x = 12] or as a quantity that can vary [such as y=2x+7]?
- Do students understand that variables can be represented with many different letters yet can have the same value?
- Do students understand that variables can function as a container for many different values?
- Do students understand that there are a number of different notations for the same operation?

## **Student Engagement**

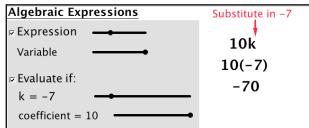
**Step 1:** The *Algebraic Expressions* applet provides examples of expressions with various variable names. The tool is also designed to evaluate the given expression with a number of different quantities. Expressions can also be shown in a variety of notations.

- Check the *Expression* checkbox to see the expression.
- Move the slider next to the *Expression* checkbox to see various expressions.
- Move the *Variable* slider to change the variable name.





Step 2: Check the *Evaluate if* checkbox then move the slider to change the value of the variable. The values will be substituted then evaluated with the value selected on the slider.



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