

Algebra Tiles - Intro & Mats

Click on the videos below.

- [Algebra Tiles Introduction](#) 
- [Algebra Tiles: Legal Simplification Moves](#) 
- [Algebra Tiles: Using an Expression Mat](#) 

1. Algebra Tiles Introduction:

- Algebra Tiles can be used to illustrate many concepts.
- Use Algebra Tiles to describe area.
- Use Algebra Tiles to describe perimeter.

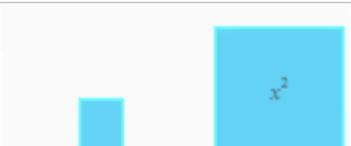
Why algebra tiles?

Help understand the following concepts:

- Combining like terms
- Evaluating expressions
- Solving equations
- Distributive Property
- Distributing a -1
- Solving systems of equations
- Factoring quadratics
- Completing the square

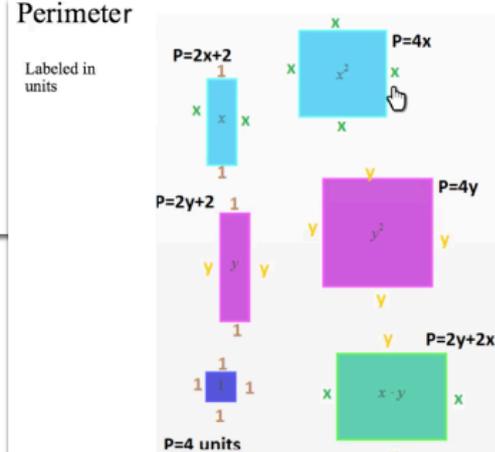
Area

Labeled in square units



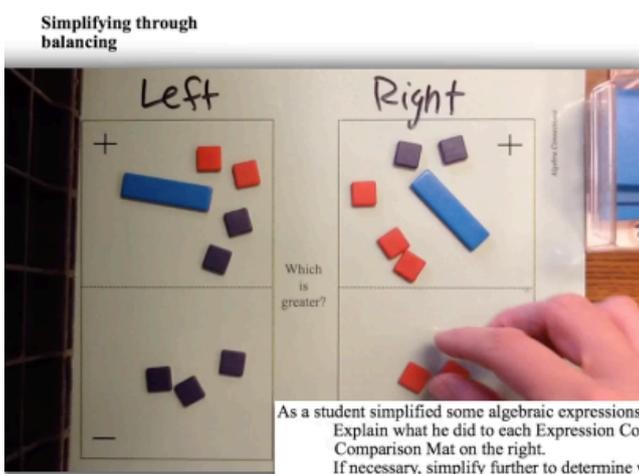
Perimeter

Labeled in units

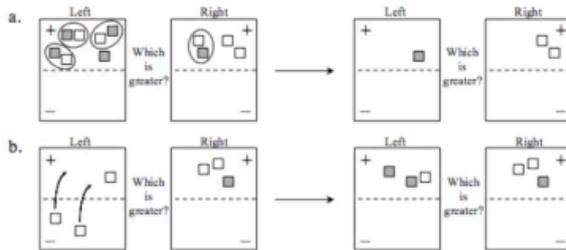


2. Algebra Tiles: Legal Simplification Moves

- View the process of balancing using Algebra Tiles.
- Students may record their work using Algebra Tiles.

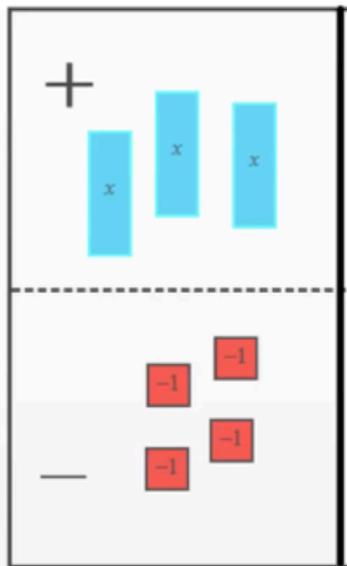


As a student simplified some algebraic expressions, he recorded his work on the diagrams below. Explain what he did to each Expression Comparison Mat on the left to get the Expression Comparison Mat on the right. If necessary, simplify further to determine which Expression Mat is greater.



3. Algebra Tiles: Using an Expression Mat

How many different ways can you build $3x - (-4)$?



$$3x - (-4)$$

