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Expression Jumble

Overview:

Students will compare and match algebraic expressions with diagrammatic models and algebraic results. They will identify equivalent representations of equations in three forms. Students can work independently or in small groups.

Materials:

One set of Expression Jumble cards per student or group.

Notes:

Provide some direct instruction prior to students attempting this activity, or allow students to attack the problems independently or in collaborative groups. Once students become familiar with the shape and name of each tile, they quickly recognize the comparison between symbolic and physical (or diagrammatic) representations. This activity is an excellent preparation for Adding and Subtracting Polynomials, an activity that follows in this book. Please note the Expression Jumble card sheets provide the reproducible master and the correct answers.

Students may need to be reminded that the expression $a - b$ can be rewritten as an addition problem, $a + (-b)$.

Students who are struggling to make matches may find it easier to create equations using **Algebraic Bossé Tiles** and manipulate the tiles to solve equations. Once solved, finding the correct matching cards will be easier.

Copy the required number of cards on card stock, cut them apart, and laminate them to increase durability.

Directions:

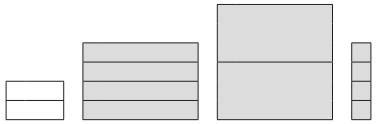
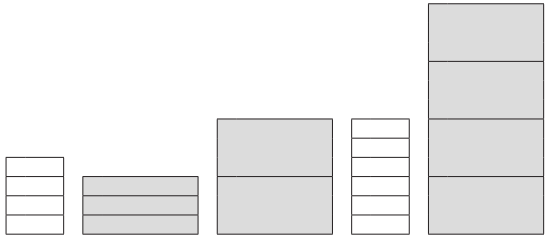
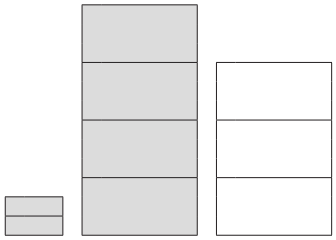
1. Provide a set of Expression Jumble cards for each student or group.
2. Ask each student or group to shuffle all the cards.
3. Explain that they will match the expression, the diagrammatic model, and the result for each card. They will end up with six sets of three cards each.
4. Ask students to compare their results with others and discuss why they selected the matches.

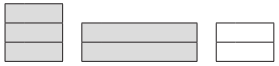
   Provide more work with zero pairs and modeling specific equations using **Bossé Tiles** if this activity is difficult for students.

Extensions:

- Ask students to develop their own matching examples and add them to the mix of cards.
- Add some more or less challenging examples of your own to adapt the activity to the range of student abilities in the class.

Expression Jumble Cards

Expression	Model	Result
$-2x + 4y + 2xy + 4$ Expression Jumble	 Expression Jumble	$-2x + 4y + 2xy + 4$ Expression Jumble
$-4x + 3y + 2xy - 6x + 4xy$ Expression Jumble	 Expression Jumble	$-10x + 3y + 6xy$ Expression Jumble
$2x + 4xy - 3xy$ Expression Jumble	 Expression Jumble	$2x + xy$ Expression Jumble

Expression	Model	Result
$3x + 2y + 4x$ Expression Jumble	 Expression Jumble	$7x + 2y$ Expression Jumble
$3x + 2y - 2x$ Expression Jumble	 Expression Jumble	$x + 2y$ Expression Jumble
$2 + 3x + 3$ Expression Jumble	 Expression Jumble	$3x + 5$ Expression Jumble

Make Your Own Expression Jumble Cards

Expression	Model	Result
Expression Jumble	Expression Jumble	Expression Jumble
Expression Jumble	Expression Jumble	Expression Jumble
Expression Jumble	Expression Jumble	Expression Jumble