Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_HR:\_\_\_\_ **Notes#\_\_\_**

**Notes 3.1 (Day 1): Algebraic Expressions**

**Learning Target:** Simplify algebraic expressions.

**Success Criteria:** • I can identify terms and like terms of algebraic expressions.

• I can combine like terms to simplify algebraic expressions.

• I can write and simplify algebraic expressions to solve real-life problems.

**Warm Up**

Your goal is to get as close to 24 as you can without going over!



**Exploration 1**

1. Choose a value of x other than 0 or 1 for the last column in the table. Complete the table by evaluating each algebraic expression for each value of x. What do you notice?

Show work here:

b. How can you use properties of operations to justify your answers in part (a)? Explain your reasoning.

c. To subtract a number, you can add its opposite. Does a similar rule apply to the terms of an algebraic expression? Explain your reasoning.

**Example 1: Like Terms**

In an algebraic expression, **like terms** are terms with the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ raised to the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ terms are also like terms.

Identify the **terms** and **like** **terms** in each expression.

3y – 2 – 4y + 6 w + 5w2 + 2w2 – 7w

Terms:

Like terms:

**Example 2 Simplifying Algebraic Expressions**

An algebraic expression is in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ when it has no like terms and no parentheses.

To combine like terms that have variables, use the Distributive Property to add or subtract the coefficients.

Simplify: 4y – 12y –3.7h + h – 13.5h

Simplify: 8u + 5w – 3w + 7u 6d – 5 – 4d + 6

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_HR:\_\_\_\_Notes#\_\_\_\_\_

**Notes 3.1 (Day 2): Algebraic Expressions**

**Learning Target:** Simplify algebraic expressions.

**Success Criteria:** • I can identify terms and like terms of algebraic expressions.

• I can combine like terms to simplify algebraic expressions.

• I can write and simplify algebraic expressions to solve real-life problems.

**Warm up**

What are the like terms in the expressions? Then, simplify the expressions.

4x + 3y – 8.5x + 5 + 3z – 8 -4y + 3x2 + -14.3y – 4.5x2 + 18

**Example 3 Modeling Real Life**



 Verbal Model

 Identify the Variable

 Expression



