**Mini-Lesson #8 – Translating Expressions & Combining Like Terms (MATH 7)**

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| **LEARNING OBJECTIVES** \_\_\_\_ I can identify constants, variables, and variable expressions\_\_\_\_ I can identify terms in a variable expression\_\_\_\_ I can identify like terms\_\_\_\_ I can simplify variable expressions by combining like terms**VOCABULARY** Constant Variable Variable Expression  \*Term \*Like Term Coefficient Operation |
| **I. TRANSLATING EXPRESSIONS****Key Terms:** Fill in the chart below with words that mean each mathematical operation.

|  |  |  |  |
| --- | --- | --- | --- |
| **+** | **-** | **x** | **÷** |
|  |  |  |  |

**TRY IT**: Translate each word phrase into a mathematical expression.1. Six less than x 2. The product of 3 and m
2. 7 more than the difference of 4. Double k

14 and the number m 1. The quotient of n and 15 plus 16 6. $24 less than the sale

 price |

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| **II. COMBINING LIKE TERMS** |
| Activity: Separate the terms within the box into their corresponding circles to form “LIKE TERMS.”  3x 4b 7 6 10b 9y b 5x x 3 6y 2b y 5 4x

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| X terms |  |  |  |  |  |
| Y terms |  |  |  |  |  |
| Constant |  |  |  |  |  |
| B terms |  |  |  |  |  |

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| How to **COMBINE LIKE TERMS**:* Use Subtraction Rules
* Use the Distributive Property to get rid of parentheses
* Identify the **like terms.**
	+ -Include the SIGN in FRONT of the term.

**Practice: COMBINE LIKE TERMS**!!! Example 1: 3x - 9 + 2x – 8 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Example 2: 10 - 12y + 2 + 8y = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Example 3: -4a - 5b + 3a + 7 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Example4: 3(2x2 - 4) + 5x2 + 3= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**PRACTICE for ML 8: Translating expressions and Combining Like Terms (Math 7)**

Simplify variable expressions.

1. 12m – 16m + 10m
2. 5xy + 6x - 10xy – 4x
3. Write the expression for the sum of r and 7.
4. 9x2 + 4x – 10x
5. Write the expression for the product of 4 and w minus 7.
6. 5am + 10am – 20am
7. Write the expression for k less than 10.
8. Find the perimeter

4x +2y

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3x + y

1. Find the perimeter

2d - 4

8d + 10

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