Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_\_Period: \_\_\_\_\_\_ Date: \_\_\_\_\_\_

**3.1C Combing Like Terms\_Classwork**

*Objective: apply properties of operations to simplify algebraic expressions; solve real-life problem.*

*CC.SS.7.EE.1 and CC.SS.EE.2*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Vocabulary***Opposite:Like Terms: **Example 1:** Identify the Terms and like terms in the expression.

|  |  |  |
| --- | --- | --- |
| 1. $3x+4-7x-6$

Terms:Like Terms:  | 1. $-9+2.5y-3y+1+6.4y^{2}$

Terms:Like Terms:  | 1. $xy+1.5y-2xy+3.3-5.2$

Terms:Like Terms:  |

An **algebraic expression** is in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ when it is no like terms and no parentheses. To combine like terms that have variables, use the Distributive Property to add or subtract the coefficients.**Example 2:** Simplify the expression

|  |  |  |
| --- | --- | --- |
| 1. $3x+4-7x-6$
 | 1. $-9+2.5y-3y+1+6.4y^{2}$
 | 1. $xy+1.5y-2xy+3.3-5.2$
 |

**ON YOUR OWN:** Simplify the expression.

|  |  |  |
| --- | --- | --- |
| 1. $12g+9g$
 | 1. $11x+9--7$
 | 1. $8m-11m+6$
 |
| 1. $4.2v-5--6.5v$
 | 1. $-8+4n+6.2-9n$
 | 1. $\frac{2}{5}y-4+7-\frac{1}{5}y$
 |

**Example 3:** Write the sum and then write an equivalent expression by collecting like terms.

|  |  |  |
| --- | --- | --- |
| 1. 2x and -2x + 3
 | 1. 2x – 7 and the opposite of 2x
 | 1. The opposite of (5x – 1) and 5x
 |

 |
| **Example 4:** Critical Thinking |
| 1. Explain why the two expressions are not equal to each other. $2x+4y\ne 6xy$
 | 1. Is xy the same as yx? Explain.
 |
| 1. Explain Sally’s mistake in the following problem.

$$Problem: 8x+6x+2$$$$her answer:16x$$ | 1. Jose and Amy were asked to combine $7x+2y+6y+3x.$ Decided who is correct. Explain.

 |

Homework: worksheet- 3.1C HW #1-14 ALL