

Name \_\_\_\_\_

Date \_\_\_\_\_

Mr. Tallman

**Lesson #43 – Combining Like Terms**

If I have 2 pencils in one hand and three pencils in the other hand, how many pencils do I have? \_\_\_\_\_

If there are 8 apples in one basket and 12 apples in another basket, how many apples are there in all? \_\_\_\_\_

If there are 6 bananas in one basket and 3 mangos in another basket, can I combine them to make 9 banan-gos? \_\_\_\_\_. Why or why not? \_\_\_\_\_

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In Math, we can only combine things that are “Like Terms”.

Like Terms have the same variable and same exponent, but can have different coefficients.

**Directions:** Identify the coefficient, base and exponent for the following terms.

	Coefficient	Base	Exponent
1) $5x^2$			
2) $-3y^6$			
3) $10x$			
4) $-9$			
5)			
6) $25r^4$			

Directions: Circle the like terms.

6)  $-6x$ ,  $7$ ,  $2x$ ,  $9x^2$ ,  $3x$

7)  $2y$ ,  $2x$ ,  $6$ ,  $0$ ,  $2y^2$

8)  $19x$ ,  $7x^2$ ,  $2y$ ,  $x^2$ ,  $3x^2$

9)  $2y$ ,  $4x$ ,  $10$ ,  $y$ ,  $2y^2$

10)  $5x^3y$ ,  $4x^3$ ,  $7y$ ,  $7xy$ ,  $-2x^3y$

**Simplify the following expressions by combining like terms.**

11) $8y + 4y$	12) $3x + 8y + 4x$	13) $-7a^2 - 16 + 10a^2$
14) $3y^2 - 4y^2$	15) $7rs - 5rs$	16) $8r^5y^2 - 4r^5y^2$

17) James simplified the expression  $4x^3 - 3x^2$  and said it equals  $1x^2$ . Is he right or wrong? Explain.

Now You Try! Simplify the following expressions by combining like terms.

1) $18 - 13r + 5 + 7r$	2) $-2 + 11 + 15m + 13m$	3) $4 - 17c + 8c$
4) $6s + s$	5) $14z + 10 - 6z - 12$	6) $b + 3b$
7) $-10 + 8d + 15d - 14$	8) $18x - 17x$	9) $10p - 6 - 2p$
10) $7z + 16 + 14z$	11) $2x^2 - 4 + 7x^2$	12) $-5xy^3 + 16 - 9xy^3$