

Name: _____
Ms. Napolitano

Date: _____
6.EE.3

Day 7 Equivalent Expressions Combining Like terms

Model

Identifying Parts of an Expression

Term – The parts of the expression that are separated by + or – sign.

Example: $3x^2 + 6x + 14 - 2x$; This expression has 4 terms.

Constant – A number without the variable.

Example: 9, 100, 1, 6, 5, 0, etc.

Like Terms – Terms with the same variable(s) raised to the same power(s).

Example: $6x$ and x are like terms.

14 and 2 are like terms.

$3xy$ and $4xy$ are like terms.



$9x^2$ and $16x^2$ are like terms.

Coefficient – Numbers that are multiplied by at least one variable.

Example: For the expression $3x + 6$; 3 is the coefficient.

Like Terms

Have the same _____ and _____.

<u>Key</u>	
 b^2	 b



+



_____ + _____ = _____



+



_____ + _____ = _____



+



_____ + _____ = _____ + _____

Model Example #1

Like Terms have the same _____ and

Directions: Tell whether the following are examples of like terms.

- 1) m and m^2 _____ 2) 5 and $10x$ _____ 3) $7b$ and $8b$ _____
- 4) $3ab$ and a^3b _____ 5) 11 and 7 _____ 6) x^3 and $\frac{1}{9}x$ _____
- 7) $6p$ and $13p$ _____ 8) $10c^4$ and $\frac{2}{5}c^4$ _____ 9) $23b^2$ and $15b^2$ _____
- 10) x and $5x$ _____ 11) $13mt$ and $6mt^2$ _____ 12) $-8k^4$ and $11k^4$ _____

Part 1 Check for Understanding

1) **Directions:** Match the following like terms from Column A with expressions from Column B.

A	B
x	$-2k^3$
9	m^4
$3h^2$	$5x$
$5m^4$	$7h^2$
K^3	15

2) **Directions:** Tell whether the following are examples of like terms.

- a) $3x$ and $4x$ _____ b) $3x^2$ and $10x$ _____ c) $-6y$ and $-y$ _____
- d) $3ab$ and $-6ab^2$ _____ e) -16 and $9c$ _____ f) $7x^3$ and $\frac{1}{9}x^3$ _____

3) In the following expression, $8c + 7f + 9c + f$ which terms are like terms?

What term is like $8c$? _____

Which term is like f ? _____

Model

When **Combining like terms** using addition and subtraction, the terms must have the **SAME VARIABLE** with the **SAME EXPONENT!**

a) $x + 4x$

b) $6y - 2y$

c) $12p - 5$

d) $k + k + k + k - k$

e) $3m + n + 2m$

f) $7p - p + 3p$

g) $8x^2 + 4x - 3x^2$

h) $3x^2 - x + 6x^2$

i) $19d - 11p - d$

j) $18 + 2d^3 + d - 5 + 3d^3$

k) $14 + p + 7q - 3 + p$

l) $11z + z^3 - 2z + 5z^2 + 16z^3$

h) $p + p^2 + 26p - p^2 + 8p^2$

