Name: \_\_\_\_\_

Date: \_\_\_\_\_ 6.EE.3

Ms. Napolitano

## 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.

9x2 and 16x2 are like terms.

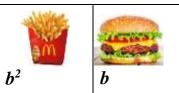
Coefficient - Numbers that are multiplied by at least one variable.

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

## **Like Terms**\_

Have the same \_\_\_\_\_\_ and \_\_\_\_\_\_.

### <u>Key</u>

















# Model\_Example #1

# Like Terms have the same \_\_\_\_\_

**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.

,	1
A	B
x	-2k <sup>3</sup>
9	m <sup>4</sup>
$3h^2$	5x
5m <sup>4</sup>	$7h^2$
$\mathbf{K}^3$	15

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

  - a) 3x and 4x \_\_\_\_\_ b) 3x<sup>2</sup> 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? \_\_\_\_\_

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

a) 
$$x + 4x$$

$$\mathbf{b)} \quad \mathbf{6y} - \mathbf{2y}$$

$$c) 12p-5$$

$$\mathbf{d)} \quad \mathbf{k} + \mathbf{k} + \mathbf{k} + \mathbf{k} - \mathbf{k}$$

e) 
$$3m + n + 2m$$

f) 
$$7p - p + 3p$$

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

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

j)	$18 + 2d^3 + d - 5 + 3d^3$	k)	14 + p + 7q – 3 + p
1)	$11z + z^3 - 2z + 5z^2 + 16z^3$		h) p + p <sup>2</sup> + 26p - p <sup>2</sup> + 8p <sup>2</sup>