

7th Grade  
Feb 10, 2021

Today we will:

- Turn in project:
- Review/complete video notes
- Begin HW



HOMEWORK:

HW Practice WS

ALEKS assignment:  
60 min and 5 topics  
due TONIGHT by 11:59pm



1 Integer warm-up:

$$-8 + 5 = -3$$

$$-3 + 7 = -10$$

$$5 + (-16) = -11$$

$$12 - 13 = -1$$

$$12 + 6 = 18$$

$$-8 - 9 = -17$$

$$-4 + (-4) = -8$$

$$-9 - (-8) = -1$$

$$13 - 21 = -8$$

2

## Vocabulary

Numerical Coefficient



Examples



3

## Vocabulary

Like Terms

Examples

4

Determine whether the terms are **LIKE** or **UNLIKE** terms.  
Drag the correct word over the terms.

$-4x$  and  $-10x$   
**LIKE**

$13xy$  and  $5y$   
**UNLIKE**

$5x^2$  and  $9x$   
**UNLIKE**

$9x^2y$  and  $4x^2y$   
**LIKE**

$3xy^2$  and  $7x^2y$   
**UNLIKE**

$17ab$  and  $-21ab$   
**LIKE**

## 5 Combining Like Terms- Important Note

REMINDER: The Subtraction sign is the same as adding a negative.

### Examples

$4x - 9$  becomes  $4x + (-9)$  as an addition problem so the subtraction symbol tell you that the 9 is negative.

$5a - 4$  becomes  $5a + (-4)$  as an addition problem so the subtraction symbol tell you the 4 is negative.

## 6 Simplifying Expressions by Combining Like Terms

You can combine like terms by adding their numerical coefficients.

### Examples

1.  $5x + 9x - 12x$

2.  $14x + 9 + 6x$

7

### More Examples

3.  $9a^2 - 6ab - 11a^2 + 10ab$

4.  $-6a + 7 - 3b - 4 + 2a + b$



8

## Guided Practice--You try

$$1. \quad -6x + 7x + 13x$$

$$-6 + 7 = 1 + 13 = 14$$

$$14x$$

$$3. \quad 3xy + 7x - 8xy + 9x$$

$$\begin{array}{r} 3xy + 8xy \quad 7x + 9x \\ \hline -5xy \quad + \quad 16x \end{array} \quad \text{!!}$$

$$2. \quad 5x^2 + 9 - 7x^2 + 16$$

$$-2x^2 + 25$$

$$4. \quad 8a^2 + 9a - 9a^2 - 17a$$

$$\begin{array}{l} 8a^2 + 9a - 9a^2 - 17a \\ \downarrow \quad \downarrow \\ 8a^2 + -9a^2 = -1a^2 \\ 9a + -17a = -8a \\ -1a^2 + -8a \end{array}$$

Work with your partner to complete the following problems.

The expressions on the right have had their like terms combined. Match each expression on the left with an expression on the right. When done move the red check inside the green box to reveal the answers.



**b**  $8x - 3x$

a.  $5x^2y + 2xy^2$

**e**  $3x + 9y - 5x$

b.  $5x$

**g**  $-4x - 5x - 7xy$

c.  $3x + 9y$

**d**  $6xy + 4yz - 3xy + yz$

d.  $3xy + 5yz$

**a**  $7x^2y - 2x^2y + 5xy^2 - 3xy^2$

e.  $-2x + 9y$

**f**  $-4x - 7xy + 8y$

f.  $-4x - 7xy + 8y$

**c**  $8x + 9y - 5x$

g.  $-9x - 7xy$







Name \_\_\_\_\_

CLASSWORK

Unit \_\_\_\_ Lesson \_\_\_\_ Due Date \_\_\_\_\_

## Lesson 2 Homework Practice

### Simplifying Algebraic Expressions

Identify the terms, like terms, coefficients, and constants in each expression.

1.  $-21w + 5 + 3w - 1$

Terms: \_\_\_\_\_

Like terms: : \_\_\_\_\_

Coefficients: : \_\_\_\_\_

Constants: : \_\_\_\_\_

2.  $f - 3fg + 2g - fg + 1$

Terms: : \_\_\_\_\_

Like terms: : \_\_\_\_\_

Coefficients: : \_\_\_\_\_

Constants: : \_\_\_\_\_

Simplify each expression.

3.  $-8q + 6 + 5q - 3$

4.  $h + 5h - 3 - 6h$

5.  $2a - 5(a + 1)$

$$2a + (-5)(a+1)$$

$$2a + -5a + -5$$

$$-3a - 5$$

$$6. b - 2(b - 2)$$

$$b + -2(b + -2)$$

$$b + -2b + +4$$

$$-1b + 4$$

7.  $9 - t - 3(t + 3)$

8.  $-8 + 5(g + 2) - 2$

9.  $12m + 9 - 2m - 16$

10.  $4(y - 3) + 9 - 3y$

11.  $r + r + r + r + r$

12.  $-14y + 12(x + y) - 12x$

13.  $19g - 4h + 4 - 20(g - 1)$

14.  $-55n + 28n + 21n + 7n - n$

15.  $-12z + 4(z - 9) + 30 + z$

For each situation, write an expression in simplest form that represents the total amount.

16. You bought 3 pieces of chicken that cost  $x$  dollars each, a salad for \$3, and a drink for \$1.

17. Sal has scored  $g$  goals this season. Ben has scored four times as many goals as Sal. Chun has scored three fewer goals than Ben.