

## Combining Like Terms Class Work

 **You will be able to...** simplify algebraic expressions by combining like terms.

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### ★ Consider This...

Let  $g$  represent the number of giraffes and  $h$  represent the number of horses.

- ◆ What would  $3g + 4h$  represent?

Could you simplify this to  $7gh$ ? Why or why not?

- ◆ What would  $3g + 2g$  represent?

Could you simplify this to  $5g$ ? Why or why not?

- ◆ What would  $7h + 3h$  represent?

Could you simplify this to  $10h$ ? Why or why not?

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 **“Like terms”** are \_\_\_\_\_.

 Identify whether or not each pair of terms are like or unlike. If unlike, explain why.

- ◆  $3x^2$  &  $8x^2$

- ◆  $2k$  and  $3k^2$

- ◆  $-8p$  &  $8p$

- ◆  $4b$  and  $-7b$

 **Guided Example:** COMBINING LIKE TERMS

Simplify the expression:  $2w^2 + 3wx - 4w + 5 - w^2 + -8w + 11wx$ .

 **Now You Try Some!**

1. Combine like terms to simplify each expression.

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

b.  $3y^2 + 7p - 8p + 9y^2$

c.  $7y - 2 - 7y + 10$

d.  $5r - 3s + 8 - 7s + r$

e.  $6x^2 + 3x - 2 + x^2 - x + 1$

f.  $m + 2n + 4m - n + 1$

2. Write an expression to represent the situation. Simplify by combining like terms.

a. The length of a rectangle is four units longer than double its width. Write a simplified expression that represents the perimeter of the rectangle.

b. The length of a rectangle is two units shorter than its width. Write a simplified expression that represents the perimeter of the rectangle.

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An example of like terms is:

♦ **WHAT IT ISN'T**

An example of NOT like terms is:

♦ **HOW IT WORKS**

Simplify the expression. Be sure to show all work.  $3x^2 + 3r + 5x^2 - r$

♦ **WHEN YOU'RE DONE, COMPLEMENTS-A-TON**

\*When you are finished, visit each other group and write a positive complement to them regarding their work! 😊

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Write a statement regarding how many pieces of each colored paper you have in your bag.

\*What did you do first?

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