

# Like Terms

# What is a Term?

- A Term is a part of an expression separated by a **plus** sign

For example, in the expression  $4x+2y$ ,

$4x$  is a term

$2y$  is a term

In the expression  $x^2-3x+2x^2-5+4x$ , the terms are:

$x^2$ ,  $2x^2$ ,  $-3x$ ,  $4x$ , and  $-5$ .

# On your Own

- Identify the terms in the expression:  
 $2x+5x-3y-7x+10$
- $3y-6x^2-3y+9xy-10x^2y^2+4$
- $4x-3y$

# Like Terms

- Like terms are terms that have the same variable raised to the same power.
- For example,  $8x$  and  $-3x$  are like terms.  $4$  and  $-3$  are like terms.  
 $x^2$  and  $2x$  are NOT like terms.

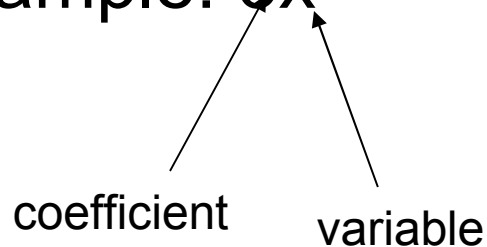
# On your own

- Identify the like terms in the expression.
- $-5x^2 - x + 8 + 6x - 10$
- $-3x^2 + 2x + x^2 - 4 + 7x$

# More on Terms

- Each term has a coefficient and a variable.

- For example:  $3x$



- The coefficient is the number in front of the variable.
- I can simplify expressions by combining like terms

# Simplifying Expressions

- An expression is simplified if it has no grouping symbols and if all like terms have been combined.
- For example,  $8x+3x=11x$
- $5m+9m=14m$

# On your own

- $3b-b$
- $c-5c$
- $4x+7x$
- $2s+4t-s$

# On your own

- $4b+x+2x-b$
- $4a+7-2a+3$
- $6x+y+3x-5y$

# More difficult ones

- I can use both like terms and distributive property
  - Simplify:

$$8+2(x+4)$$

$$8+2x+8$$

$$2x+16$$

# More difficult ones

- Ex:  $2(x+3) + 3(5+x)$

$$2x+6+15+3x$$

$$5x+21$$

# On your own

- $9x+4(2x-1)$
- $3(y+2)+4y$
- $1+2(6+3r)$
- $5(2m+5)-6$