# Algebra I Lesson #2 Unit 1 Class Worksheet #2 For Worksheets 2 & 3

 $7 = 1 \cdot 7$ 

$$7 = 1 \cdot 7$$

$$7 + 7 = 2 \cdot 7$$

$$7 = 1 \cdot 7$$

$$7 + 7 = 2 \cdot 7$$

$$7 + 7 + 7 = 3 \cdot 7$$

$$7 = 1 \cdot 7$$

$$7 + 7 = 2 \cdot 7$$

$$7 + 7 + 7 = 3 \cdot 7$$

$$7 + 7 + 7 + 7 = 4 \cdot 7$$

$$7 = 1 \cdot 7$$

$$7 + 7 = 2 \cdot 7$$

$$7 + 7 + 7 = 3 \cdot 7$$

$$7 + 7 + 7 + 7 = 4 \cdot 7$$

$$7 + 7 + 7 + 7 + 7 = 5 \cdot 7$$

$$7 = 1 \cdot 7$$

$$4 = 1 \cdot 4$$

$$7 + 7 = 2 \cdot 7$$

$$7 + 7 + 7 = 3 \cdot 7$$

$$7 + 7 + 7 + 7 = 4 \cdot 7$$

$$7 + 7 + 7 + 7 + 7 = 5 \cdot 7$$

$$7 = 1 \cdot 7$$

$$7 + 7 = 2 \cdot 7$$

$$7 + 7 + 7 = 3 \cdot 7$$

$$7 + 7 + 7 + 7 = 4 \cdot 7$$

$$7 + 7 + 7 + 7 + 7 = 5 \cdot 7$$

$$4 = 1 \cdot 4$$

$$4 + 4 = 2 \cdot 4$$

$$7 = 1 \cdot 7$$

$$7 + 7 = 2 \cdot 7$$

$$7 + 7 + 7 = 3 \cdot 7$$

$$7 + 7 + 7 + 7 = 4 \cdot 7$$

$$7 + 7 + 7 + 7 + 7 = 5 \cdot 7$$

$$4 = 1 \cdot 4$$

$$4 + 4 = 2 \cdot 4$$

$$4 + 4 + 4 = 3 \cdot 4$$

$$7 = 1 \cdot 7$$

$$7 + 7 = 2 \cdot 7$$

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$$7 + 7 + 7 + 7 = 4 \cdot 7$$

$$7 + 7 + 7 + 7 + 7 = 5 \cdot 7$$

$$4 = 1 \cdot 4$$

$$4 + 4 = 2 \cdot 4$$

$$4 + 4 + 4 = 3 \cdot 4$$

$$4 + 4 + 4 + 4 = 4 \cdot 4$$

$$7 = 1 \cdot 7$$
  $4 = 1 \cdot 4$   
 $7 + 7 = 2 \cdot 7$   $4 + 4 = 2 \cdot 4$   
 $7 + 7 + 7 = 3 \cdot 7$   $4 + 4 + 4 = 3 \cdot 4$   
 $7 + 7 + 7 + 7 = 4 \cdot 7$   $4 + 4 + 4 + 4 = 4 \cdot 4$   
 $7 + 7 + 7 + 7 + 7 = 5 \cdot 7$   $4 + 4 + 4 + 4 + 4 = 5 \cdot 4$ 

$$7 = 1 \cdot 7$$
  $4 = 1 \cdot 4$   $x = 1 \cdot x$ 
 $7 + 7 = 2 \cdot 7$   $4 + 4 = 2 \cdot 4$ 
 $7 + 7 + 7 = 3 \cdot 7$   $4 + 4 + 4 = 3 \cdot 4$ 
 $7 + 7 + 7 + 7 = 4 \cdot 7$   $4 + 4 + 4 + 4 = 4 \cdot 4$ 
 $7 + 7 + 7 + 7 = 5 \cdot 7$   $4 + 4 + 4 + 4 + 4 = 5 \cdot 4$ 

$$7 = 1 \cdot 7$$
  $4 = 1 \cdot 4$   
 $7 + 7 = 2 \cdot 7$   $4 + 4 = 2 \cdot 4$   
 $7 + 7 + 7 = 3 \cdot 7$   $4 + 4 + 4 = 3 \cdot 4$   
 $7 + 7 + 7 + 7 = 4 \cdot 7$   $4 + 4 + 4 + 4 = 4 \cdot 4$   
 $7 + 7 + 7 + 7 + 7 = 5 \cdot 7$   $4 + 4 + 4 + 4 + 4 = 5 \cdot 4$ 

$$\mathbf{x} = \mathbf{1} \cdot \mathbf{x}$$

$$\mathbf{x} + \mathbf{x} = \mathbf{2} \cdot \mathbf{x}$$

$$7 = 1 \cdot 7$$
  $4 = 1 \cdot 4$   $x = 1x$   $7 + 7 = 2 \cdot 7$   $4 + 4 = 2 \cdot 4$   $x + x = 2x$   $7 + 7 + 7 = 3 \cdot 7$   $4 + 4 + 4 = 3 \cdot 4$   $x + x + x = 3x$   $7 + 7 + 7 + 7 = 4 \cdot 7$   $4 + 4 + 4 + 4 = 4 \cdot 4$   $x + x + x + x = 4x$   $7 + 7 + 7 + 7 = 5 \cdot 7$   $4 + 4 + 4 + 4 + 4 = 5 \cdot 4$   $x + x + x + x + x = 5x$ 

$$7 = 1 \cdot 7$$
  $4 = 1 \cdot 4$   $x = 1x$   $7 + 7 = 2 \cdot 7$   $4 + 4 = 2 \cdot 4$   $x + x = 2x$   $7 + 7 + 7 = 3 \cdot 7$   $4 + 4 + 4 = 3 \cdot 4$   $x + x + x = 3x$   $7 + 7 + 7 + 7 = 4 \cdot 7$   $4 + 4 + 4 + 4 = 4 \cdot 4$   $x + x + x + x = 4x$   $7 + 7 + 7 + 7 = 5 \cdot 7$   $4 + 4 + 4 + 4 + 4 = 5 \cdot 4$   $x + x + x + x + x = 5x$ 

These are called  $\underline{\mathbf{x}}$  terms.

$$x = 1x$$

$$x + x = 2x$$

$$x + x + x = 3x$$

$$x + x + x + x = 4x$$

$$x + x + x + x + x = 5x$$

These are called  $\underline{\mathbf{x}}$  terms.

$$x = 1x$$

$$x + x = 2x$$

$$x + x + x = 3x$$

$$x + x + x + x = 4x$$

$$x + x + x + x + x = 5x$$

These are called x terms.

The numbers 1, 2, 3, 4, and 5 are called <u>coefficients</u>.

1. 
$$x + x + x + y + y + y + y =$$
\_\_\_\_\_

1. 
$$x + x + x + y + y + y + y =$$
\_\_\_\_\_

1. 
$$x + x + x + y + y + y + y =$$

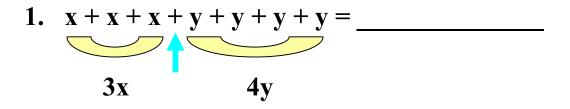
3x

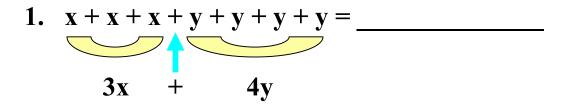
1. 
$$x + x + x + y + y + y + y =$$

3x

1. 
$$x + x + x + y + y + y + y =$$

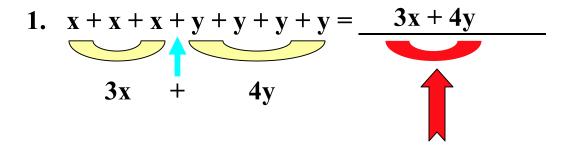
3x 4y





1. 
$$x + x + x + y + y + y + y = 3x + 4y$$
 $3x + 4y$ 

1. 
$$x + x + x + y + y + y + y = 3x + 4y$$
 $3x + 4y$ 



These terms cannot be added.

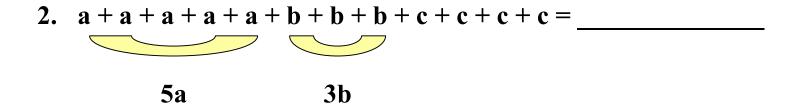
2. 
$$a + a + a + a + a + b + b + b + c + c + c + c =$$

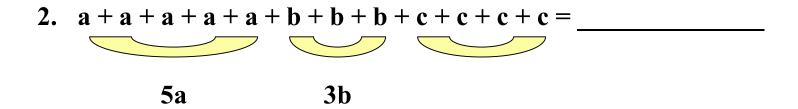
2. 
$$a + a + a + a + a + b + b + b + c + c + c + c =$$

2. 
$$a + a + a + a + a + b + b + b + c + c + c + c =$$
5a

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$$a + a + a + a + a + b + b + b + c + c + c + c =$$

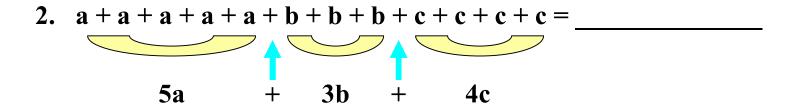
5a

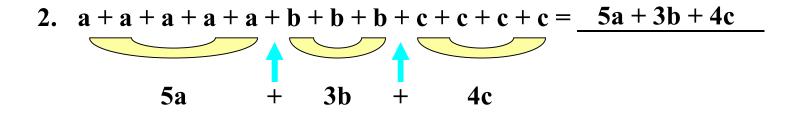


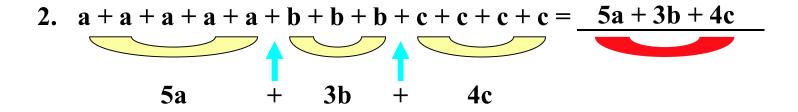


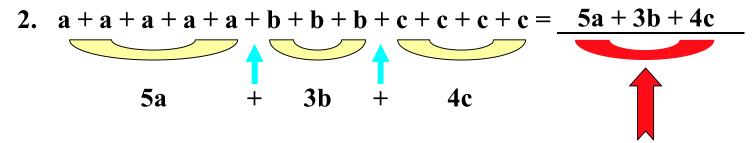
2. 
$$a + a + a + a + a + b + b + b + c + c + c + c =$$

5a 3b 4c





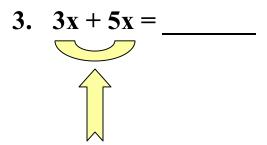




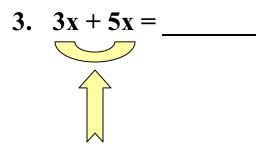
These terms cannot be added.

3. 
$$3x + 5x =$$

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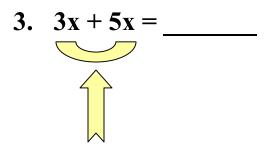


These are both x terms.



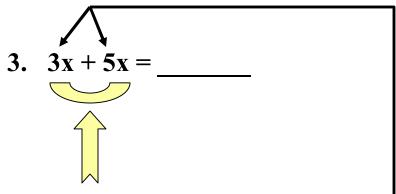
These are both x terms.

They can be added.



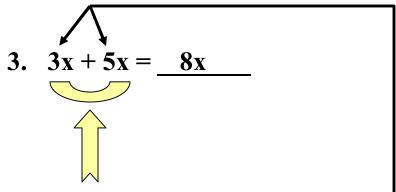
These are both x terms.

They can be added. Just add the coefficients.



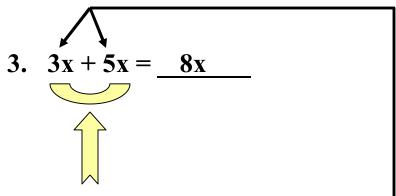
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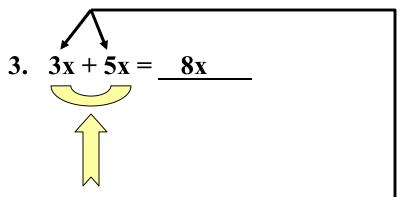
They can be added. Just add the coefficients.



These are both x terms.

They can be added. Just add the coefficients.

### **Simplifying Algebraic Expressions**

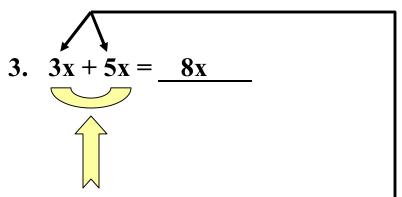


Other examples of like terms.

These are both x terms.

They can be added. Just add the coefficients.

### **Simplifying Algebraic Expressions**



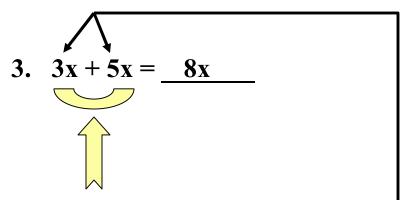
Other examples of like terms.

4. 
$$5y + 7y =$$
\_\_\_\_\_

These are both x terms.

They can be added. Just add the coefficients.

### **Simplifying Algebraic Expressions**



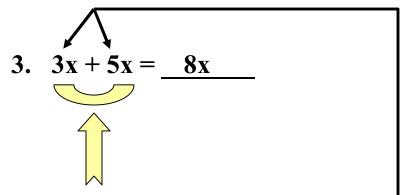
Other examples of like terms.

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### **Simplifying Algebraic Expressions**



Other examples of like terms.

4. 
$$5y + 7y = 12y$$

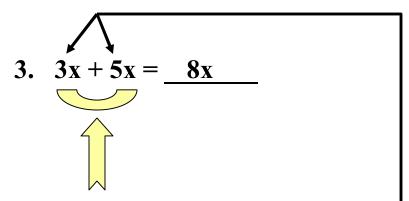
5. 
$$6n + 3n =$$
\_\_\_\_\_

These are both x terms.

They can be added. Just add the coefficients.

Rule: Like terms can be added.

### **Simplifying Algebraic Expressions**



Other examples of like terms.

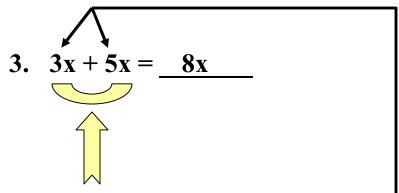
4. 
$$5y + 7y = 12y$$

5. 
$$6n + 3n = 9n$$

These are both x terms.

They can be added. Just add the coefficients.

### **Simplifying Algebraic Expressions**



These are both x terms.

Other examples of like terms.

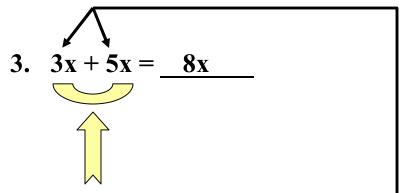
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6. 
$$3xy + 2xy =$$
\_\_\_\_\_

They can be added. Just add the coefficients.

### **Simplifying Algebraic Expressions**



These are both x terms.

Other examples of like terms.

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$$5y + 7y = 12y$$

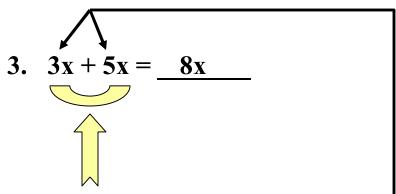
5. 
$$6n + 3n = 9n$$

$$6. \quad 3xy + 2xy = \underline{\quad 5xy \quad}$$

They can be added. Just add the coefficients.

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### **Simplifying Algebraic Expressions**



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They can be added. Just add the coefficients.

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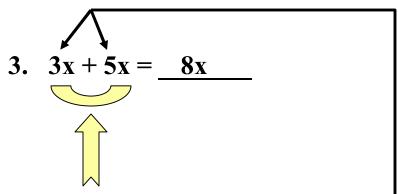
4. 
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7. 
$$4x + x =$$
\_\_\_\_\_

### **Simplifying Algebraic Expressions**



These are both x terms.

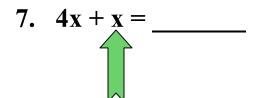
They can be added. Just add the coefficients.

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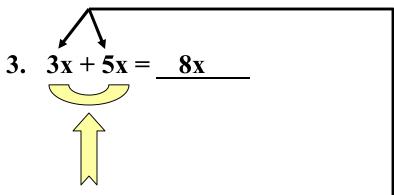
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They can be added. Just add the coefficients.

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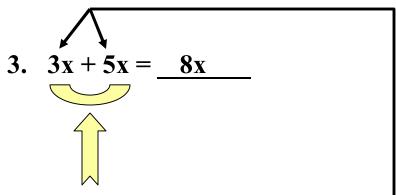
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### **Simplifying Algebraic Expressions**



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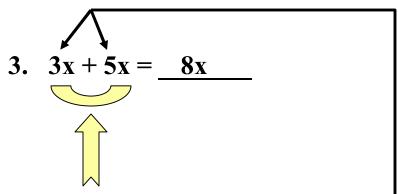
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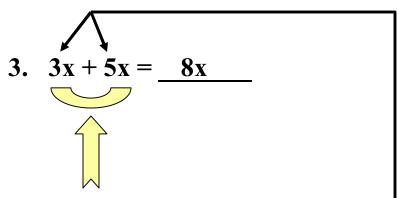
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### **Simplifying Algebraic Expressions**



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They <u>can</u> be added. Just add the coefficients.

Rule: Like terms can be added.

Other examples of like terms.

4. 
$$5y + 7y = 12y$$

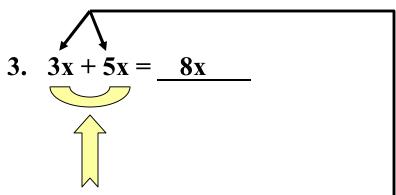
5. 
$$6n + 3n = 9n$$

$$6. \quad 3xy + 2xy = \underline{5xy}$$

7. 
$$4x + x = 5x$$

The examples below cannot be added.

### **Simplifying Algebraic Expressions**



These are both x terms.

They can be added. Just add the coefficients.

Rule: <u>Like terms can be added</u>.

Other examples of like terms.

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$$5y + 7y = 12y$$

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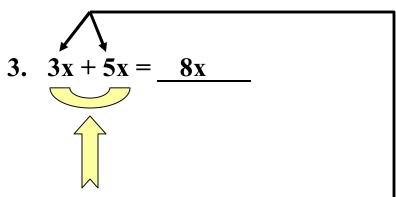
$$6. \quad 3xy + 2xy = \underline{\quad 5xy \quad}$$

7. 
$$4x + x = 5x$$

The examples below cannot be added.

$$6x + 3y$$

### **Simplifying Algebraic Expressions**



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Rule: Like terms can be added.

Other examples of like terms.

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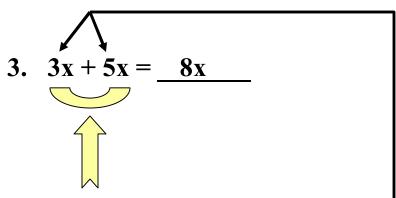
$$6. \quad 3xy + 2xy = \underline{5xy}$$

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$$4x + x = 5x$$

The examples below cannot be added. They are not like terms.

$$6x + 3y$$

### **Simplifying Algebraic Expressions**



These are both x terms.

They can be added. Just add the coefficients.

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Other examples of like terms.

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$$5y + 7y = 12y$$

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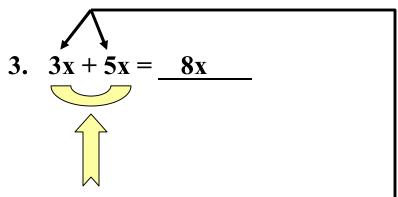
7. 
$$4x + x = 5x$$

The examples below cannot be added. They are not like terms.

$$6x + 3y$$

$$5x + 2$$

### **Simplifying Algebraic Expressions**



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They can be added. Just add the coefficients.

Rule: Like terms can be added.

Other examples of like terms.

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$$5y + 7y = 12y$$

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$$6n + 3n = 9n$$

$$6. \quad 3xy + 2xy = \underline{5xy}$$

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$$4x + x = 5x$$

The examples below cannot be added. They are not like terms.

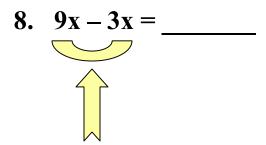
$$6x + 3y$$

$$5x + 2$$

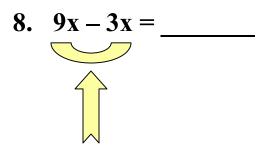
$$3ab + 4a$$

8. 
$$9x - 3x =$$
\_\_\_\_\_

$$9x-3x=$$

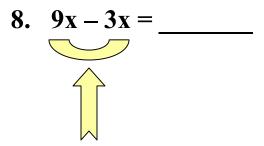


These are both x terms.



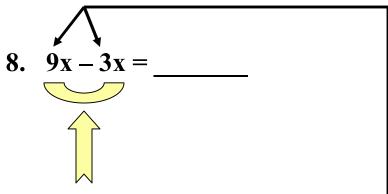
These are both x terms.

They can be subtracted.



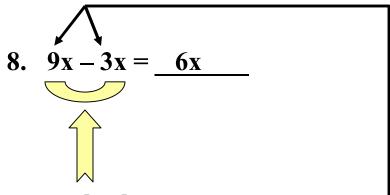
These are both x terms.

They can be subtracted. Just subtract the coefficients.



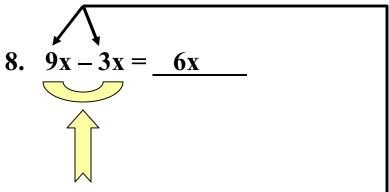
These are both x terms.

They <u>can</u> be subtracted. Just subtract the coefficients.



These are both x terms.

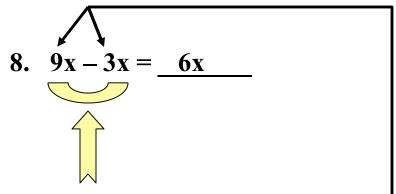
They can be subtracted. Just subtract the coefficients.



These are both x terms.

They can be subtracted. Just subtract the coefficients.

#### **Simplifying Algebraic Expressions**

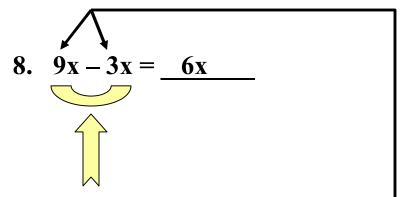


Other examples.

These are both x terms.

They can be subtracted. Just subtract the coefficients.

#### **Simplifying Algebraic Expressions**



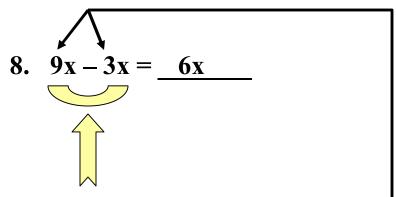
Other examples.

9. 
$$8y - 5y =$$

These are both x terms.

They can be subtracted. Just subtract the coefficients.

#### **Simplifying Algebraic Expressions**



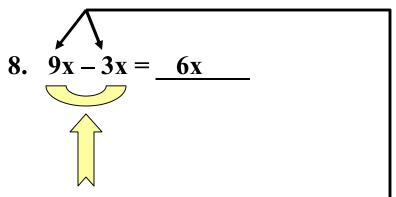
Other examples.

9. 
$$8y - 5y = 3y$$

These are both x terms.

They can be subtracted. Just subtract the coefficients.

#### **Simplifying Algebraic Expressions**



Other examples.

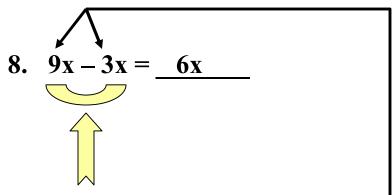
9. 
$$8y - 5y = 3y$$

10. 
$$6n - 5n =$$
\_\_\_\_\_

These are both x terms.

They can be subtracted. Just subtract the coefficients.

#### **Simplifying Algebraic Expressions**



Other examples.

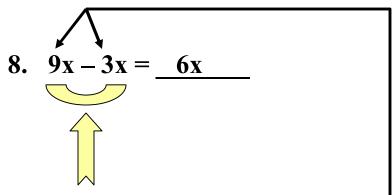
9. 
$$8y - 5y = 3y$$

10. 
$$6n - 5n = 1n$$

These are both x terms.

They can be subtracted. Just subtract the coefficients.

#### **Simplifying Algebraic Expressions**



Other examples.

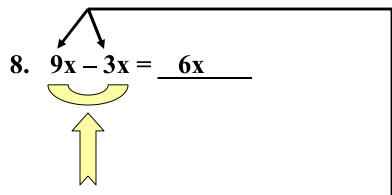
9. 
$$8y - 5y = 3y$$

10. 
$$6n - 5n = n$$

These are both x terms.

They can be subtracted. Just subtract the coefficients.

#### **Simplifying Algebraic Expressions**



Other examples.

9. 
$$8y - 5y = 3y$$

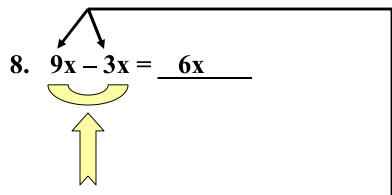
10. 
$$6n - 5n = n$$

11. 
$$7cd - cd =$$
\_\_\_\_\_

These are both x terms.

They <u>can</u> be subtracted. Just subtract the coefficients.

#### **Simplifying Algebraic Expressions**



They <u>can</u> be subtracted. Just subtract the coefficients.

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Other examples.

9. 
$$8y - 5y = 3y$$

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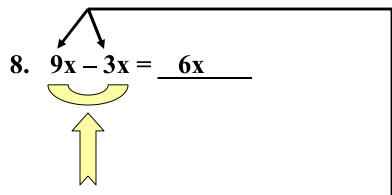
11. 
$$7cd - cd =$$
\_\_\_\_\_



Rule: Like terms can be subtracted.

1cd

#### **Simplifying Algebraic Expressions**



These are both x terms.

Other examples.

9. 
$$8y - 5y = 3y$$

10. 
$$6n - 5n = n$$

11. 
$$7cd - cd = 6cd$$

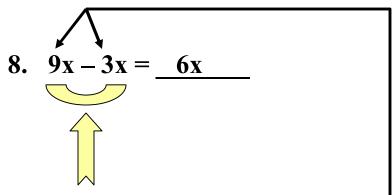
They <u>can</u> be subtracted. Just subtract the coefficients.

Rule: Like terms can be subtracted.



1cd

#### **Simplifying Algebraic Expressions**



These are both x terms.

Other examples.

9. 
$$8y - 5y = 3y$$

10. 
$$6n - 5n = n$$

11. 
$$7cd - cd = 6cd$$

They can be subtracted. Just subtract the coefficients.

12. 
$$7x + 2x - 3y =$$

12. 
$$7x + 2x - 3y =$$
\_\_\_\_\_

12. 
$$7x + 2x - 3y =$$

Like terms

12. 
$$7x + 2x - 3y = 9x - 3y$$

Like terms

13. 
$$5ab + 3ab + 7ab =$$
\_\_\_\_\_

13. 
$$5ab + 3ab + 7ab =$$
\_\_\_\_\_

14. 
$$5xy - xy + 3 =$$
\_\_\_\_\_

14. 
$$5xy - xy + 3 =$$
\_\_\_\_\_

14. 
$$5xy - xy + 3 =$$

Like terms

**Simplifying Algebraic Expressions** 

$$5xy - 1xy + 3$$
14.  $5xy - xy + 3 =$ 

Like terms

$$5xy - 1xy + 3$$
14.  $5xy - xy + 3 = 4xy + 3$ 
Like terms

$$5xy - 1xy + 3$$
14.  $5xy - xy + 3 = 4xy + 3$ 
Like terms

### Good Luck on your homework!!!