


Binder - let's get organized before we start.

1. Check your warm up section - paper? organized? dates?
2. Notes - are those 4 sheets with equations in there? Are your notes organized?
3. Classwork/homework can be cleaned out if it's getting messy.
4. Graded work **MUST** stay until the end of the quarter!

Oct 5-2:34 PM

Notes:

Combining Like Terms



Sep 21-7:42 AM

Use Color and add notes as we go!

Algebraic Expression

$$4x + 3$$

Oct 5-2:36 PM

Algebraic Expression

Coefficient -

a number that is multiplied by the variable

$$4x + 3$$

Sep 27-5:39 PM

Algebraic Expression

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Variable -

a letter that represents a value

Sep 27-5:39 PM

Algebraic Expression

Coefficient -

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Variable - a letter that represents a value

Operator - addition, subtraction, multiplication, division

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Algebraic Expression

Coefficient - a number that is multiplied by the variable

Variable - a letter that represents a value

Operator - addition, subtraction, multiplication, division

Constant - a number that stands alone in an expressions

$4x + 3$

Sep 27-5:39 PM

Algebraic Expression

Terms - combinations of constants and variables, separated by operators (+, -)

Coefficient - a number that is multiplied by the variable

Variable - a letter that represents a value

Operator - addition, subtraction, multiplication, division

Constant - a number that stands alone in an expressions

$4x + 3$

Sep 27-5:39 PM

Term - A constant, variable, or a coefficient with a variable. They are separated by + and - signs.

Example: $8x + y - x^2 + 7 - \frac{y}{4}$

Sep 21-7:30 AM

Term	4a	$\frac{2}{3}y$	3k ²	x ²	$\frac{x}{9}$	4.7t
Coefficient						

Sep 21-7:33 AM

Like terms are terms with the same variable raised to the same power. The coefficients do not have to be the same. Constants, like 5, $\frac{1}{2}$, and 3.2, are also like terms.

Like Terms	3x and 2x	w and $\frac{w}{7}$	5 and 1.8
Unlike Terms	5x ² and 2x <i>The exponents are different.</i>	6a and 6b <i>The variables are different</i>	3.2 and n <i>Only one term contains a variable</i>

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Combining like terms is like grouping similar objects.

$4x + 5x = 9x$

To combine like terms that have variables, add or subtract the coefficients.

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Like Terms - Same Variable and exponent or no variable at all

$3x^2$	y	x	y^2	x^3	9
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$5x^3$	$8x$	$5x^2$
$8y^2$	$3y$	12

Oct 5-2:56 PM

Identify like terms in the list.

$3t$ $5w^2$ $7t$ $9v$ $4w^2$ $8v$

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Identify like terms in the list.

$2x$ $4y^3$ $8x$ $5z$ $5y^3$ $8z$

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Combine like terms.

C. $3a^2 + 5b + 11b^2 - 4b + 2a^2 - 6$

Sep 21-7:34 AM

Combine like terms.

D. $5y + 3y$

E. $23x^2 - 13x + 6$

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Combine like terms.

1) $4x^2 + 4y + 3x^2 - 4y + 2x^2 + 5$

2) $5y + c + 2c + 5 + y + 2y$

Sep 21-7:35 AM

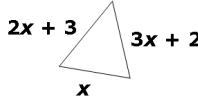
Combine like terms.

A. $6t - 4t$

B. $45x - 37y + 87$

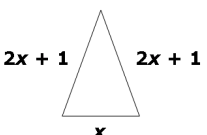
Sep 21-7:34 AM

F. **Write an expression for the perimeter of the triangle shown. Combine like terms in the expression.**



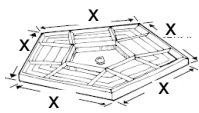
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G. **Write an expression for the perimeter of the triangle shown. Combine like terms in the expression.**

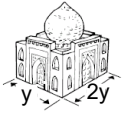


Sep 21-7:35 AM


Use each figure below and the given variables to write an expression to calculate the perimeter of each building. Once you write an expression, combine like terms.



Pentagon, Arlington, Virginia
Perimeter: _____



Taj Mahal, Agra, India
Perimeter: _____



Parthenon, Athens, Greece
Perimeter: _____

Remember all four sides for the Taj Mahal and Parthenon! They are rectangular.

If you finish early, try to write a fact about each famous building!

Oct 8-7:30 AM

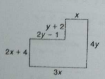
Practice C
Combining Like Terms

Combine like terms.

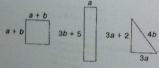
- $8x^2 + 4x - 3x^2 + 3^2 - k + 5$
- $10x^3 + 5y^2 + 2xy - 4y^2 + 4xy - x^3$
- $3a + 2b^2 + 6c + a - 2c + b^2 + c$
- $12x^4 + 6x^2 + 5x^2 - x^2 + 2xy - 8x^4$
- $9p^3 + q^2 + 6p + 5q^2 + 5p - 5q^2$
- $h^2 + 4h + 4h^2 - h + 4 + h^2 + 7h$

7. Write an expression that has five terms and simplifies to $6m^2 + 4n$ when you combine like terms.

8. Write an expression for the perimeter of the figure to the right. Combine like terms in the expression.



9. Write an expression to find the combined perimeters of the figures to the right. Combine like terms in the expression.



10. Jake scored x points in the first basketball game. He scored 2 fewer points in the next game. His teammate, Jack, scored 2y points in the first game and 4 more than twice as many points in the next game. Write an expression for the total number of points scored by both players and combine like terms.

86 Holt Middle School Math Course 2

Oct 6-4:43 PM

Practice - Blue workbook page 18

Oct 5-2:50 PM

Distributive Property and Combining Like Terms

Let's look at Distributive Property first

3 (2 + 4)

1. $8(x + y) = 8x + \underline{\hspace{2cm}}$
2. $5a + 5b = 5(\underline{\hspace{1cm}} + b)$
3. $4(9 + 3x) = \underline{\hspace{2cm}} + 12x$
4. $63 + 9y = 9(\underline{\hspace{1cm}} + y)$

Oct 9-2:14 PM

Distributive Property and Combining Like Terms

Examples:

$5(x - 5)$

$6(a+2b+3a)$

$2(3x+6) + 3x$

$6(7c + 2) + 9$

Oct 9-2:16 PM

Identify like terms.

1. $3n^2$ $5n$ $2n^3$ $8n$
2. a^5 $2a^2$ a^3 $3a$ $4a^2$

Combine like terms.

3. $4a + 3b + 2a$
4. $x^2 + 2y + 8x^2$
5. Write an expression for the perimeter of the given figure.

Exit Ticket

Sep 21-7:35 AM

Tonight's Homework

Combine Like Terms sheet & Souvenirs sheet

Sep 21-7:35 AM

From Homework paper

⑥ $9(x+5) + 7(x-3)$

$9x + 45 + 7x - 21$

$16x + 24$

④ $5x + 2(x^2 + 8)$

$5x + 2x^2 + 16$

$2x^2 + 5x + 16$

⑦ $8 + (x-4)2$ $8 + 2(x-4)$

$8 + 2x - 8$

$2x$

Oct 10-10:38 AM

Homework

Name _____

Practice A

2.3 Combining Like Terms

Identify like terms.

1. $6a$ b a 17 $4b$ 32 $17a$
2. x x^2 $3x$ 3 $3x^2$ 6
3. $2z$ $6z$ $6z^2$ z $17z$ z^2 3
4. m 8 $8m^2$ $8m$ m^2 $12m$ 18
5. $2p$ $22p$ $56q$ 12^2 q 34
6. d d^2 $15d^2$ $2d$ d^2 $5d$ $4d$

Combine like terms.

7. $6p^2 + 3p^2$
8. $9x - 6x$
9. $a^2 + 6^2 + 2a^2 + 5b^2$
10. $7h^2 + 3 - 2h^2 + 4$
11. $3x + 3y + x + y + z$
12. $5b + 5b + 6b^2 - 10 - 3b$

13. Find the perimeter of the rectangle.

Combine like terms.

A $4x + 3y$

B $8x + 6y$

C $12xy$

D $4x^2 + 3y^2$

84 Holt Middle School Math Course 2

Oct 6-4:37 PM