

Name \_\_\_\_\_

Subject: Combining Like Terms

Objective: I will be able to **Combine Like Terms**

Date:

Homework: **yes!!**

Vocabulary

Like Terms: Terms that have the same variable raised to the same power.

Are the following like terms?

a.) 2 and 3 **yes**

d.)  $3ab$  and  $2ab$  **yes**

b.)  $3x$  and  $2x$  **yes**

e.)  $3x$  and  $3x^2$  **NO**

c.)  $3x$  and  $2y$  **NO**

f.)  $3xy$  and  $2yx$  **yes**

Are the following like terms? Why or Why not

TERMS	YES or NO	EXPLANATION
$4x$ and $3$	no	one has an $x$ and the other one doesn't
$4x$ and $3y$	no	" "
$4x$ and $3x^2$	no	raised to a different power
$4x$ and $3x$	yes	same variable, same power.

Now combine like terms....

1.) $3x + 2x$ $5x$	2.) $3x + 2y$ $3x + 2y$
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3.) <del><math>3x + 10 + 3y + 2x - 2y + 13</math></del> $3x + 2x + 3y - 2y + 10 + 13$ $5x + y + 23$	4.) <del><math>x + x^2 + 2x - 1</math></del> $x + 2x + x^2 - 1$ $3x + x^2 - 1$ $x^2 + 3x - 1$
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On your own...

Simplify:

$\cancel{2x^2} + \cancel{4x} + \cancel{9} + \cancel{13} + \cancel{3x^2}$ $2x^2 + 3x^2 + 4x + 9 + 13$ <p style="text-align: center;">↓</p> $5x^2 + 4x + 22$	$10x^2 + 3x - 18 - 4x^2 + 6x - 9$ $10x^2 + 3x - 18 - 4x^2 + 6x - 9$ $6x^2 + 9x - 27$
$-6x^2y + 3x - 21x - 36x^2y + x$ $-6x^2y + 3x - 21x - 36x^2y + x$ $-6x^2y - 36x^2y + 3x - 21x + x$ $-42x^2y - 18x + x$ $-42x^2y - 17x$	$10ab^2 + 6ab - ab^2 + 3ab + 10 - 18$ $10ab^2 + 6ab - ab^2 + 3ab + 10 - 18$ $9ab^2 + 9ab + 8$