

Do NowSimplify the following by combining like terms.

1) $-4s - 8s$ $-12s$	2) $10x + x$ $11x$	3) $-5 + 7y - 8 - 3y$ $4y - 13$
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Simplify the following by using the distributive property.

4) $3(x + 7)$ $3x + 21$	5) $-9(y - 6)$ $-9y + 54$	6) $-(b + 12)$ $-1(b + 12)$ $-1b - 12$
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Lesson#45 - Simplifying Expressions Using the Distributive Property and Combining Like Terms.

We can use the distributive property and combining like terms to simplify long and complicated expressions. ALWAYS USE THE DISTRIBUTIVE PROPERTY FIRST, THEN COMBINE LIKE TERMS.

Example 1) Simplify the following: $3w + 2(w - 1)$

Steps	Example
1) Use the distributive property.	$3w + 2w - 2$
2) Combine Like Terms.	$5w - 2$
3) Write your final answer.	

Directions: Simplify the following algebraic expressions.

<p>1) $3 + 2(-3a + 10)$</p> <p>$3 - 6a + 20$</p> <p>$-6a + 23$</p>	<p>2) $-9 - 3(-9b - 7)$</p> <p>$-9 + 27b + 21$</p> <p>$12 + 27b$</p>
<p>3) $8 + 6(2a - 1)$</p> <p>$8 + 12a - 6$</p> <p>$12a + 2$</p>	<p>4) $-3 + 10n + 1n + 6 + 8n$</p> <p>$19n + 3$</p>
<p>5) $9(k - 3) - 4$</p> <p>$9k - 27 - 4$</p> <p>$9k - 31$</p>	<p>6) $-10(n + 10) - 4$</p> <p>$-10n - 100 - 4$</p> <p>$-10n - 104$</p>
<p>7 $-6b - 1 - (-2)b$</p> <p>$-4b - 1$</p>	<p>8) $a + a + a + a + a$</p> <p>$5a$</p>
<p>9) $-9 + 5z - 1z - 5 - 6z$</p> <p>$-4z - 14$</p>	<p>10) $-5y + 5 + 4 + 10y$</p> <p>$5y + 9$</p>

<p>11) $-3t - 7t + 2 - 3t$</p> <p>$-13t + 2$</p>	<p>12) $10(s + 1) + 4$</p> <p>$10s + 10 + 4$</p> <p>$10s + 14$</p>
<p>13) $-7w + 10w$</p> <p>$3w$</p>	<p>14) $-2(y + 3) - 5$</p> <p>$-2y - 6 - 5$</p> <p>$-2y - 11$</p>

15) Which of the following expressions is equivalent to $5(n - 8) + 4n$?

A) $49n$

B) $9n + 40$

C) $9n - 40$

D) $5n - 40$

$5n - 40 + 4n$

$9n - 40$