

Subtract Linear Expressions

You can subtract expressions using the properties of operations.

Let's try it! Simplify $(9x + 23) - (-7x + 15)$.

$$(9x + 23) - (-7x + 15)$$

$$(9x + 23) + (-1)(-7x + 15)$$

Rewrite subtraction as addition. Remember, subtracting is the same as adding the opposite.

$$(9x + 23) + (-1)(-7x) + (-1)(15)$$

Use the distributive property to distribute -1 to each of the terms in the second expression.

$$(9x + 23) + [7x + (-15)]$$

Simplify and identify like terms.

$$(9x + 7x) + [23 + (-15)]$$

Use the commutative and associative properties to reorder and group like terms.

$$16x + 8$$

Combine like terms.



Try it yourself! Find each difference.

1. $(2w - 3) - (6w)$	2. $(5b - 7) - (-12)$
3. $(-3m + 15) - (-9m)$	4. $(4j + 11) - (20j)$
5. $(-4p + 10) - (8p - 18)$	6. $(-16f + 7) - (-11f + 8)$
7. $(5n - 17) - (13n + 12)$	8. $(9t - 3) - (-4t - 17)$
9. $\left(\frac{5}{9}d + \frac{1}{6}\right) - \left(\frac{7}{9}d - \frac{5}{6}\right)$	10. $(-8.1y - 1.9) - (0.75y - 7.4)$