

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.

<p>1. $(2w - 3) - (6w)$</p> <p>$-4w - 3$</p>	<p>2. $(5b - 7) - (-12)$</p> <p>$5b + 5$</p>
<p>3. $(-3m + 15) - (-9m)$</p> <p>$6m + 15$</p>	<p>4. $(4j + 11) - (20j)$</p> <p>$-16j + 11$</p>
<p>5. $(-4p + 10) - (8p - 18)$</p> <p>$-12p + 28$</p>	<p>6. $(-16f + 7) - (-11f + 8)$</p> <p>$-5f - 1$</p>
<p>7. $(5n - 17) - (13n + 12)$</p> <p>$-8n - 29$</p>	<p>8. $(9t - 3) - (-4t - 17)$</p> <p>$13t + 14$</p>
<p>9. $(\frac{5}{9}d + \frac{1}{6}) - (\frac{7}{9}d - \frac{5}{6})$</p> <p>$-\frac{2}{9}d + 1$</p>	<p>10. $(-8.1y - 1.9) - (0.75y - 7.4)$</p> <p>$-8.85y + 5.5$</p>