

Lesson
3.2

Reteach HOMEWORK

EXAMPLE Subtracting a Linear Expression

Find the difference $(11w + 3) - (5w - 2)$.

Vertical method: Write the expressions vertically, aligning like terms. Then subtract by adding the opposite of each term in the second expression.

$$\begin{array}{r} 11w + 3 \\ - (5w - 2) \\ \hline \end{array} \quad \begin{array}{c} \text{Add the opposite.} \\ \rightarrow \end{array} \quad \begin{array}{r} 11w + 3 \\ + (-5w) + 2 \\ \hline 6w + 5 \end{array}$$

Horizontal method: Group like terms using properties of operations and simplify.

$$\begin{aligned} (11w + 3) - (5w - 2) &= (11w + 3) + (-5w + 2) && \text{Add the opposite.} \\ &= 11w + (-5w) + 3 + 2 && \text{Commutative Property of Addition} \\ &= 6w + 5 && \text{Combine like terms.} \end{aligned}$$

Find the sum.

- | | |
|----------------------------------|--|
| 1. $(2a - 3) + (5a - 6)$ | 2. $(7q + 1) + (9q - 13)$ |
| 3. $(8 - k) + (4 + 3k)$ | 4. $(12x - 2) + (7x - 1)$ |
| 5. $(5.7t + 1.9) + (2.6t + 4.1)$ | 6. $\left(\frac{3}{4}c - 8\right) + \left(\frac{1}{2}c + 5\right)$ |

Find the difference.

- | | |
|-----------------------------------|---|
| 7. $(6d - 2) - (3d + 2)$ | 8. $(4 - v) - (11 + 2v)$ |
| 9. $(5h + 7) - (9h - 6)$ | 10. $(10x - 1) - (4x + 5)$ |
| 11. $(8.7y - 3.3) - (7.2y - 4.9)$ | 12. $\left(\frac{2}{5}f + 12\right) - \left(\frac{3}{10}f - 9\right)$ |