

9.2 Key Concepts 1 Adding Polynomials Worked Example

Example: Add $(3x + 8y - 3z) + (2x - y + 5z)$.

Solution: Remove the brackets. Then, collect like terms.

$$\begin{aligned}(3x + 8y - 3z) + (2x - y + 5z) &= 3x + 8y - 3z + 2x - y + 5z \\ &= 3x + 2x + 8y - y - 3z + 5z \\ &= 5x + 7y + 2z\end{aligned}$$

Practice:

1. Add $(x + 2y - z) + (2x - 3y + 2z)$.

2. Add $(10x - 6y - 4z) + (3x + y + 7z)$.

Answers: 1. $3x - y + z$ 2. $13x - 5y + 3z$