

## 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.  $13x - 5y + 3z$