

## Simplifying Quadratic Expressions (B)

Simplify each expression by combining like terms.

1.  $-3b^2 + 5b^2 - 8b - 7b + 3b + 3b^2 + 9 + 8 - 2b^2$

2.  $-6n - 2n^2 + 6 + 7n + 4n^2 + 7 + 8n^2 + 7n + 4n$

3.  $3m + m^2 + 2m + 2m + m^2 + 8 + 9 + 9m^2 - 4m$

4.  $-4v + 5v - 3v^2 - 1 + 7v^2 - 3v^2 + 3v^2 - 2v^2 + 7$

5.  $6 - 7 - 9 + 4n^2 + 9n - 5n^2 - 5n^2 + 6 + 3n$

6.  $-9r - 3r + 5 + 9r + 8 - 3r - 6r + 3r^2 + 4r^2$

7.  $4 + 3q^2 - 3q^2 + q^2 + q^2 + 9q - 6q^2 - 9q^2 + 3q^2$

8.  $-2q + 8q^2 + 1 + 4q^2 + 7q + 3q^2 + 4q^2 - 8q - 2$

9.  $-2h + 4 - 8h^2 - 9 - 7h + 9h - 4 + 2h - 9$

10.  $d^2 + 8d + 1 + 5d + 6d - 6d^2 - 2d - 6d - 3d$

## Simplifying Quadratic Expressions (B) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. & -3b^2 + 5b^2 - 8b - 7b + 3b + 3b^2 + 9 + 8 - 2b^2 \\ & = 3b^2 - 12b + 17 \end{aligned}$$

$$\begin{aligned} 2. & -6n - 2n^2 + 6 + 7n + 4n^2 + 7 + 8n^2 + 7n + 4n \\ & = 10n^2 + 12n + 13 \end{aligned}$$

$$\begin{aligned} 3. & 3m + m^2 + 2m + 2m + m^2 + 8 + 9 + 9m^2 - 4m \\ & = 11m^2 + 3m + 17 \end{aligned}$$

$$\begin{aligned} 4. & -4v + 5v - 3v^2 - 1 + 7v^2 - 3v^2 + 3v^2 - 2v^2 + 7 \\ & = 2v^2 + v + 6 \end{aligned}$$

$$\begin{aligned} 5. & 6 - 7 - 9 + 4n^2 + 9n - 5n^2 - 5n^2 + 6 + 3n \\ & = -6n^2 + 12n - 4 \end{aligned}$$

$$\begin{aligned} 6. & -9r - 3r + 5 + 9r + 8 - 3r - 6r + 3r^2 + 4r^2 \\ & = 7r^2 - 12r + 13 \end{aligned}$$

$$\begin{aligned} 7. & 4 + 3q^2 - 3q^2 + q^2 + q^2 + 9q - 6q^2 - 9q^2 + 3q^2 \\ & = -10q^2 + 9q + 4 \end{aligned}$$

$$\begin{aligned} 8. & -2q + 8q^2 + 1 + 4q^2 + 7q + 3q^2 + 4q^2 - 8q - 2 \\ & = 19q^2 - 3q - 1 \end{aligned}$$

$$\begin{aligned} 9. & -2h + 4 - 8h^2 - 9 - 7h + 9h - 4 + 2h - 9 \\ & = -8h^2 + 2h - 18 \end{aligned}$$

$$\begin{aligned} 10. & d^2 + 8d + 1 + 5d + 6d - 6d^2 - 2d - 6d - 3d \\ & = -5d^2 + 8d + 1 \end{aligned}$$