

# Simplifying Quadratic Expressions (E)

Simplify each expression by combining like terms.

1.  $3n - 9 + 9n - 5 + 4 + 8n^2$

2.  $-6x^2 - 3x^2 + 4x^2 + 6x + x^2 - 4x^2$

3.  $9z - 2z^2 + 1 - 1 + 5z - 8$

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

5.  $3w - 7w - 9w^2 + 8w + 4w^2 - 7w$

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

7.  $-8t^2 + 3t^2 + 6t^2 - 9t - 7t + 7t$

8.  $5w + 7w - 7 + 2w - 6w^2 + w^2$

9.  $-6 - 3w^2 + 4w^2 + 4w^2 - 3w - 9w$

10.  $-8b^2 + 2b^2 - 7b^2 - b + b + 6b$

# Simplifying Quadratic Expressions (E) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. & 3n - 9 + 9n - 5 + 4 + 8n^2 \\ & = 8n^2 + 12n - 10 \end{aligned}$$

$$\begin{aligned} 2. & -6x^2 - 3x^2 + 4x^2 + 6x + x^2 - 4x^2 \\ & = -8x^2 + 6x \end{aligned}$$

$$\begin{aligned} 3. & 9z - 2z^2 + 1 - 1 + 5z - 8 \\ & = -2z^2 + 14z - 8 \end{aligned}$$

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

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

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

$$\begin{aligned} 7. & -8t^2 + 3t^2 + 6t^2 - 9t - 7t + 7t \\ & = t^2 - 9t \end{aligned}$$

$$\begin{aligned} 8. & 5w + 7w - 7 + 2w - 6w^2 + w^2 \\ & = -5w^2 + 14w - 7 \end{aligned}$$

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

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