

Simplifying Quadratic Expressions (C)

Simplify each expression by combining like terms.

1. $-4y^2 + y + 4y^2 + 3y^2 - 6 + 8y - 9y + 5y$

2. $-4g^2 - 1 + 4g - g + 7g^2 + 4g + 5 + 4g$

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

4. $-z^2 + 5z + 4z^2 - 6z^2 - 8z - 4z - 9 + 8z^2$

5. $-2 - 4z - 9z^2 + 4 + 3z + 3z^2 + 7z^2 + 9z^2$

6. $-3c^2 + 6 - c - 4c^2 + c^2 - c^2 - 5c^2 - 1$

7. $5r - 4r^2 + 8 + 3r + 7r^2 + 6r^2 - r^2 - 6r^2$

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

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

10. $-2d + 9d + 2d^2 + 5d^2 - 4d^2 - 9d^2 + 8d^2 + 9$

Simplifying Quadratic Expressions (C) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. & -4y^2 + y + 4y^2 + 3y^2 - 6 + 8y - 9y + 5y \\ & = 3y^2 + 5y - 6 \end{aligned}$$

$$\begin{aligned} 2. & -4g^2 - 1 + 4g - g + 7g^2 + 4g + 5 + 4g \\ & = 3g^2 + 11g + 4 \end{aligned}$$

$$\begin{aligned} 3. & 3 - 5n - 5n^2 + 2n - 2n^2 - 8n - 5n - 4n^2 \\ & = -11n^2 - 16n + 3 \end{aligned}$$

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

$$\begin{aligned} 5. & -2 - 4z - 9z^2 + 4 + 3z + 3z^2 + 7z^2 + 9z^2 \\ & = 10z^2 - z + 2 \end{aligned}$$

$$\begin{aligned} 6. & -3c^2 + 6 - c - 4c^2 + c^2 - c^2 - 5c^2 - 1 \\ & = -12c^2 - c + 5 \end{aligned}$$

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

$$\begin{aligned} 8. & 1 - 9m^2 - 3m^2 - 8 + m + 5m^2 - 4m^2 - 2 \\ & = -11m^2 + m - 9 \end{aligned}$$

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

$$\begin{aligned} 10. & -2d + 9d + 2d^2 + 5d^2 - 4d^2 - 9d^2 + 8d^2 + 9 \\ & = 2d^2 + 7d + 9 \end{aligned}$$