

Simplifying Quadratic Expressions (D)

Simplify each expression by combining like terms.

1. $6c^2 + 7 + 6 - 2c^2 - 3c + 7 - 4c - 3$

2. $6a^2 - 8 + 8 - 7a + 7a - 2a^2 + 2 - 1$

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

4. $-6q - 2q^2 - 8 - 9q - 2q^2 - 4q^2 - 7q^2 + 6q$

5. $-8 - 9k + k + 5k^2 + 6k^2 - 3k^2 - 7k^2 - 6k^2$

6. $4c^2 - 8c^2 - 7 + 4c - 3c^2 + 4c - 6 - 7c$

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

8. $-7t - 6t^2 + 4t^2 - 3 + 9t^2 + 7t^2 - 3 + 3t^2$

9. $8a^2 + 6a^2 - a + 1 - a + 5 - 2a - 7a^2$

10. $3s + 9 - 7s^2 + 7s^2 - 3s^2 + 4s^2 - 4s - 9s$

Simplifying Quadratic Expressions (D) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. \quad & 6c^2 + 7 + 6 - 2c^2 - 3c + 7 - 4c - 3 \\ & = 4c^2 - 7c + 17 \end{aligned}$$

$$\begin{aligned} 2. \quad & 6a^2 - 8 + 8 - 7a + 7a - 2a^2 + 2 - 1 \\ & = 4a^2 + 1 \end{aligned}$$

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

$$\begin{aligned} 4. \quad & -6q - 2q^2 - 8 - 9q - 2q^2 - 4q^2 - 7q^2 + 6q \\ & = -15q^2 - 9q - 8 \end{aligned}$$

$$\begin{aligned} 5. \quad & -8 - 9k + k + 5k^2 + 6k^2 - 3k^2 - 7k^2 - 6k^2 \\ & = -5k^2 - 8k - 8 \end{aligned}$$

$$\begin{aligned} 6. \quad & 4c^2 - 8c^2 - 7 + 4c - 3c^2 + 4c - 6 - 7c \\ & = -7c^2 + c - 13 \end{aligned}$$

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

$$\begin{aligned} 8. \quad & -7t - 6t^2 + 4t^2 - 3 + 9t^2 + 7t^2 - 3 + 3t^2 \\ & = 17t^2 - 7t - 6 \end{aligned}$$

$$\begin{aligned} 9. \quad & 8a^2 + 6a^2 - a + 1 - a + 5 - 2a - 7a^2 \\ & = 7a^2 - 4a + 6 \end{aligned}$$

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