

Simplifying Quadratic Expressions (E)

Simplify each expression by combining like terms.

1. $-2b^2 - 2 + b^2 + 5 - 2b^2 + 2b^2 + 6$

2. $6h^2 + 5h^2 - 4h + 3 - 4h^2 + 9 - 5h^2$

3. $8a + 5 - 5a^2 + 9a + 6a - a^2 - 5a^2$

4. $7p - 4 + 7p^2 - 2 - 4p^2 + 3p^2 + 6$

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

6. $-2 - 7q^2 - 6q^2 + 7 + 5q - 2q^2 - 2$

7. $7p + 5p + 2p^2 + 9p^2 + p - 4 + 9p^2$

8. $-3 - 6z + 7 - 1 - 8 + 5z^2 + 7z^2$

9. $r^2 + 4r^2 + r - 9r^2 - r + 6r + 7r^2$

10. $9k^2 + 4k - 5k + 8k^2 - 3k^2 + 5k - 3k^2$

Simplifying Quadratic Expressions (E) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. & -2b^2 - 2 + b^2 + 5 - 2b^2 + 2b^2 + 6 \\ & = -b^2 + 9 \end{aligned}$$

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

$$\begin{aligned} 3. & 8a + 5 - 5a^2 + 9a + 6a - a^2 - 5a^2 \\ & = -11a^2 + 23a + 5 \end{aligned}$$

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

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

$$\begin{aligned} 6. & -2 - 7q^2 - 6q^2 + 7 + 5q - 2q^2 - 2 \\ & = -15q^2 + 5q + 3 \end{aligned}$$

$$\begin{aligned} 7. & 7p + 5p + 2p^2 + 9p^2 + p - 4 + 9p^2 \\ & = 20p^2 + 13p - 4 \end{aligned}$$

$$\begin{aligned} 8. & -3 - 6z + 7 - 1 - 8 + 5z^2 + 7z^2 \\ & = 12z^2 - 6z - 5 \end{aligned}$$

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

$$\begin{aligned} 10. & 9k^2 + 4k - 5k + 8k^2 - 3k^2 + 5k - 3k^2 \\ & = 11k^2 + 4k \end{aligned}$$