

Simplifying Quadratic Expressions (F)

Simplify each expression by combining like terms.

1. $8p^2 - 2p^2 + 2p^2 + p + 9$

2. $8 + 7 + 3z^2 - 2z - 5z^2 - 9z - z^2 - 5$

3. $7k^2 - 3k^2 + 7k^2 + 1 + 7k^2$

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

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

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

7. $-a^2 - 7a + 8a^2 - 7a + 5a^2 + 2a - 5a^2 + a + 8$

8. $7f^2 + 1 + 2f + 1 + 9f^2$

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

10. $-7 + 3w + 2w^2 - 7w^2 - 2 + 4 - 1 + 9w + 5 - 7$

Simplifying Quadratic Expressions (F) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. & 8p^2 - 2p^2 + 2p^2 + p + 9 \\ & = 8p^2 + p + 9 \end{aligned}$$

$$\begin{aligned} 2. & 8 + 7 + 3z^2 - 2z - 5z^2 - 9z - z^2 - 5 \\ & = -3z^2 - 11z + 10 \end{aligned}$$

$$\begin{aligned} 3. & 7k^2 - 3k^2 + 7k^2 + 1 + 7k^2 \\ & = 18k^2 + 1 \end{aligned}$$

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

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

$$\begin{aligned} 6. & 7c^2 + 7c^2 + 3c^2 - 4c + 5 - c + 4c + 8c \\ & = 17c^2 + 7c + 5 \end{aligned}$$

$$\begin{aligned} 7. & -a^2 - 7a + 8a^2 - 7a + 5a^2 + 2a - 5a^2 + a + 8 \\ & = 7a^2 - 11a + 8 \end{aligned}$$

$$\begin{aligned} 8. & 7f^2 + 1 + 2f + 1 + 9f^2 \\ & = 16f^2 + 2f + 2 \end{aligned}$$

$$\begin{aligned} 9. & -6c^2 + 5 - 2c + 3c^2 - 8c + 3 \\ & = -3c^2 - 10c + 8 \end{aligned}$$

$$\begin{aligned} 10. & -7 + 3w + 2w^2 - 7w^2 - 2 + 4 - 1 + 9w + 5 - 7 \\ & = -5w^2 + 12w - 8 \end{aligned}$$