

Simplifying Quadratic Expressions (G)

Simplify each expression by combining like terms.

1. $n^2 - 7n^2 - 7n + 5n^2 + 5n + 5n^2 - 5$

2. $4 + 3x^2 + 5x^2 + 2 + 3 + 3x + 6x$

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

4. $7 + 7p^2 - 1 + p^2 - 4p^2 - 3p + 4p^2$

5. $8f^2 - 9 - f^2 + 6 - 6f^2 - f + 8f^2$

6. $-3p - 2p^2 + 8p + 9 + 6p^2 - 8p - 8$

7. $-1 + 8f - 5f^2 + 2 + 2f^2 + 8 - 5$

8. $-5v^2 - 6v - 9 + 4v^2 - 7v^2 - 7v^2 - 7$

9. $8r - 5 + 7 - 8r^2 - 7 + 7r - r$

10. $h - 6 + 6 + 6h^2 + 8 - 2h^2 + 9$

Simplifying Quadratic Expressions (G) Answers

Simplify each expression by combining like terms.

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

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

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

$$\begin{aligned} 4. & 7 + 7p^2 - 1 + p^2 - 4p^2 - 3p + 4p^2 \\ & = 8p^2 - 3p + 6 \end{aligned}$$

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

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

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

$$\begin{aligned} 8. & -5v^2 - 6v - 9 + 4v^2 - 7v^2 - 7v^2 - 7 \\ & = -15v^2 - 6v - 16 \end{aligned}$$

$$\begin{aligned} 9. & 8r - 5 + 7 - 8r^2 - 7 + 7r - r \\ & = -8r^2 + 14r - 5 \end{aligned}$$

$$\begin{aligned} 10. & h - 6 + 6 + 6h^2 + 8 - 2h^2 + 9 \\ & = 4h^2 + h + 17 \end{aligned}$$