

Simplifying Quadratic Expressions (G)

Simplify each expression by combining like terms.

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

2. $s + 9s + s + 3 + s^2 - 2$

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

4. $-6x^2 - 5x^2 - 5x^2 + 2x^2 - 8x^2 - 8x^2$

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

6. $7w - 7w + w - 8w^2 - 2w^2 - 7w$

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

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

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

10. $-b^2 + 8 + 4b^2 + 5b^2 + 4b^2 + 5b^2$

Simplifying Quadratic Expressions (G) Answers

Simplify each expression by combining like terms.

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

$$\begin{aligned} 2. & s + 9s + s + 3 + s^2 - 2 \\ & = s^2 + 11s + 1 \end{aligned}$$

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

$$\begin{aligned} 4. & -6x^2 - 5x^2 - 5x^2 + 2x^2 - 8x^2 - 8x^2 \\ & = -30x^2 \end{aligned}$$

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

$$\begin{aligned} 6. & 7w - 7w + w - 8w^2 - 2w^2 - 7w \\ & = -10w^2 - 6w \end{aligned}$$

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

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

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

$$\begin{aligned} 10. & -b^2 + 8 + 4b^2 + 5b^2 + 4b^2 + 5b^2 \\ & = 17b^2 + 8 \end{aligned}$$