

Simplifying Quadratic Expressions (G)

Simplify each expression by combining like terms.

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

2. $y^2 - 7y^2 - 7y + 2y - 8y^2 - 2y + 9y + 8$

3. $4y + 2y + 3y + 3 + 2 - 3y^2 + 4y^2 + 7y^2$

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

5. $1 - 5 - 8 + 8 - 4h^2 + 8h^2 + h + 5$

6. $7f + 6f + 8 + 8f^2 + 5f + 6f^2 - 4 + 7f^2$

7. $7t^2 + 9t + 9 - 3t^2 + 8 - 9t + 4 - 5t^2$

8. $4n^2 - n^2 + 4n - 3 - 3n^2 - 2n - 9 - n$

9. $-6 - 8 + 1 + 4g + 3g^2 + 7g^2 + 8g^2 - 9g$

10. $5y - 3y^2 - 6y^2 + 2y - 1 + 2y^2 - 4y^2 + 3y$

Simplifying Quadratic Expressions (G) Answers

Simplify each expression by combining like terms.

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

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

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

$$\begin{aligned} 4. & 5y + 9y^2 + 6y^2 + 4 - 2 - 2y^2 + 9y - 3 \\ & = 13y^2 + 14y - 1 \end{aligned}$$

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

$$\begin{aligned} 6. & 7f + 6f + 8 + 8f^2 + 5f + 6f^2 - 4 + 7f^2 \\ & = 21f^2 + 18f + 4 \end{aligned}$$

$$\begin{aligned} 7. & 7t^2 + 9t + 9 - 3t^2 + 8 - 9t + 4 - 5t^2 \\ & = -t^2 + 21 \end{aligned}$$

$$\begin{aligned} 8. & 4n^2 - n^2 + 4n - 3 - 3n^2 - 2n - 9 - n \\ & = n - 12 \end{aligned}$$

$$\begin{aligned} 9. & -6 - 8 + 1 + 4g + 3g^2 + 7g^2 + 8g^2 - 9g \\ & = 18g^2 - 5g - 13 \end{aligned}$$

$$\begin{aligned} 10. & 5y - 3y^2 - 6y^2 + 2y - 1 + 2y^2 - 4y^2 + 3y \\ & = -11y^2 + 10y - 1 \end{aligned}$$