

Simplifying Quadratic Expressions (H)

Simplify each expression by combining like terms.

1. $2 - c^2 - 7c^2 - 4 - 9c^2$

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

3. $p^2 + 4p^2 + 9p^2 - p + 7 + 6p - 7 - 9p^2 - 9$

4. $t^2 + 7t + 8 - 7t^2 + 2t^2$

5. $-2 - 7r - 6r^2 + 4r^2 - 6r$

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

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

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

9. $b^2 - 4b - 7b - 3b + 8 - 9b + b + 7 + 7b + 3b$

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

Simplifying Quadratic Expressions (H) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. & 2 - c^2 - 7c^2 - 4 - 9c^2 \\ & = -17c^2 - 2 \end{aligned}$$

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

$$\begin{aligned} 3. & p^2 + 4p^2 + 9p^2 - p + 7 + 6p - 7 - 9p^2 - 9 \\ & = 5p^2 + 5p - 9 \end{aligned}$$

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

$$\begin{aligned} 5. & -2 - 7r - 6r^2 + 4r^2 - 6r \\ & = -2r^2 - 13r - 2 \end{aligned}$$

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

$$\begin{aligned} 7. & 7t - 2 - 8 + 8 - 9t^2 + 4 - 6 - 2t^2 - 3t^2 + 2t \\ & = -14t^2 + 9t - 4 \end{aligned}$$

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

$$\begin{aligned} 9. & b^2 - 4b - 7b - 3b + 8 - 9b + b + 7 + 7b + 3b \\ & = b^2 - 12b + 15 \end{aligned}$$

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