

Simplifying Quadratic Expressions (H)

Simplify each expression by combining like terms.

1. $4d - 6d^2 - 6d^2 - 5d - 8d + 4d^2 - 4$

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

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

4. $5 + f^2 + f^2 - 3f - f^2 - 1 + f^2$

5. $-3 + 5 + 2x^2 + 3 + 9 + 5x - 8$

6. $-9w^2 - 7 - 4 - 4w - 6w^2 - 9w^2 - 2w^2$

7. $-4v + 7v^2 + 4v^2 + v^2 + 4v - 3v^2 - 5v$

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

9. $-9 + 8s^2 + 2s^2 + 2 + 2 - 6s^2 + 6s^2$

10. $-6g^2 - 4g^2 + 6g^2 - 2 + 6g^2 - 7g + 5g$

Simplifying Quadratic Expressions (H) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. & 4d - 6d^2 - 6d^2 - 5d - 8d + 4d^2 - 4 \\ & = -8d^2 - 9d - 4 \end{aligned}$$

$$\begin{aligned} 2. & -6t^2 - 3t - 7t^2 - 3t^2 + 7t^2 - 6t^2 - 4 \\ & = -15t^2 - 3t - 4 \end{aligned}$$

$$\begin{aligned} 3. & c^2 + 8c^2 + 3c + 5c - 9 + 3c^2 + 3c^2 \\ & = 15c^2 + 8c - 9 \end{aligned}$$

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

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

$$\begin{aligned} 6. & -9w^2 - 7 - 4 - 4w - 6w^2 - 9w^2 - 2w^2 \\ & = -26w^2 - 4w - 11 \end{aligned}$$

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

$$\begin{aligned} 8. & 6p - 3p^2 - 9p^2 - 9p^2 + p - 4p^2 - 7p^2 \\ & = -32p^2 + 7p \end{aligned}$$

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

$$\begin{aligned} 10. & -6g^2 - 4g^2 + 6g^2 - 2 + 6g^2 - 7g + 5g \\ & = 2g^2 - 2g - 2 \end{aligned}$$