

Simplifying Quadratic Expressions (B)

Simplify each expression by combining like terms.

1. $-5x^2 + 2 + 9x^2 + 6x^2 + 7x^2 + 4 + 3x + 2x + 4x + 3x$

2. $-3 + 4 + 9s - 4s - 3s^2 - 8 + 8 + 4s - 2 + 5s^2$

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

4. $-3j - j^2 - 4j - 8 + 8 + 6j^2 + 4j + 3 - j^2 - 5j$

5. $-7v - 9v^2 - 1 + v^2 - 4 - 2 + 8 - 6v + 7v + 4v$

6. $7y + 9y^2 + 8y^2 + 4y + 7y^2 + 9y^2 - 6y + 6 - 7y^2 + 4y^2$

7. $3x^2 - 3 - 2x^2 - 4x^2 - 2x^2 + 9x^2 + 2 - 3 + 9 - 2x^2$

8. $-4 - 5z - 7z^2 + 5z^2 - 6 - 2 + 3 + 8 + 9z^2 - 4z^2$

9. $p^2 - 4p^2 - 1 - 2 - 6 - 4 + 9p - 4 + 9p^2 - 8p^2$

10. $6p - 9p^2 + 7p^2 + 7 - 4p^2 - 6p + 7 + 6 - 3 + 3p^2$

Simplifying Quadratic Expressions (B) Answers

Simplify each expression by combining like terms.

$$\begin{aligned} 1. & -5x^2 + 2 + 9x^2 + 6x^2 + 7x^2 + 4 + 3x + 2x + 4x + 3x \\ & = 17x^2 + 12x + 6 \end{aligned}$$

$$\begin{aligned} 2. & -3 + 4 + 9s - 4s - 3s^2 - 8 + 8 + 4s - 2 + 5s^2 \\ & = 2s^2 + 9s - 1 \end{aligned}$$

$$\begin{aligned} 3. & 7 - 8w^2 - 4w^2 + 8w^2 + 8w^2 - 9w^2 - w^2 - 7w - 2 + 5 \\ & = -6w^2 - 7w + 10 \end{aligned}$$

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

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

$$\begin{aligned} 6. & 7y + 9y^2 + 8y^2 + 4y + 7y^2 + 9y^2 - 6y + 6 - 7y^2 + 4y^2 \\ & = 30y^2 + 5y + 6 \end{aligned}$$

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

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

$$\begin{aligned} 9. & p^2 - 4p^2 - 1 - 2 - 6 - 4 + 9p - 4 + 9p^2 - 8p^2 \\ & = -2p^2 + 9p - 17 \end{aligned}$$

$$\begin{aligned} 10. & 6p - 9p^2 + 7p^2 + 7 - 4p^2 - 6p + 7 + 6 - 3 + 3p^2 \\ & = -3p^2 + 17 \end{aligned}$$