

Simplifying Quadratic Expressions (E)

Simplify each expression by combining like terms.

1. $3 + 8 + 8n^2 - 7 - 1 + 9 - 6 - 3n^2 - 3n - 5n^2$

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

3. $8 + 3 - 8 - 8q^2 + q - 2q - 8q^2 - 7 + 2 - 6q^2$

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

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

6. $-2v^2 - 2v + 2v + 9 - 1 - 5v - 7 - 6v^2 - 8v + 3$

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

8. $-6k^2 + 4k^2 + 6 - 1 + 8 + 8k - 3k + 5k^2 - 8k + 4$

9. $-8n - 3n^2 - 9 - 5n + 3 - 2n^2 + 7 + 2n^2 + 7n^2 + n$

10. $5j^2 - j - 2j + 5j + 5 - 3j - 9j + 5j + j^2 - 2j$

Simplifying Quadratic Expressions (E) Answers

Simplify each expression by combining like terms.

$$1. 3 + 8 + 8n^2 - 7 - 1 + 9 - 6 - 3n^2 - 3n - 5n^2 \\ = -3n + 6$$

$$2. 4v^2 - 6v^2 - 2 + 6v + 9v^2 + 2v^2 + 1 + v^2 - 7 - 5v \\ = 10v^2 + v - 8$$

$$3. 8 + 3 - 8 - 8q^2 + q - 2q - 8q^2 - 7 + 2 - 6q^2 \\ = -22q^2 - q - 2$$

$$4. 4x^2 - 5x + 6x^2 - 3x^2 + 2x^2 - 2x + 4x - 6x^2 - x - 8x^2 \\ = -5x^2 - 4x$$

$$5. -8 - a - 8 - 2a^2 + 9a + 3a + 4a^2 + 8a^2 + 9a - 5 \\ = 10a^2 + 20a - 21$$

$$6. -2v^2 - 2v + 2v + 9 - 1 - 5v - 7 - 6v^2 - 8v + 3 \\ = -8v^2 - 13v + 4$$

$$7. -4s - 9 + s^2 + 6s^2 + 5s^2 + 2s^2 + 7 + 3s - 1 + 2s^2 \\ = 16s^2 - s - 3$$

$$8. -6k^2 + 4k^2 + 6 - 1 + 8 + 8k - 3k + 5k^2 - 8k + 4 \\ = 3k^2 - 3k + 17$$

$$9. -8n - 3n^2 - 9 - 5n + 3 - 2n^2 + 7 + 2n^2 + 7n^2 + n \\ = 4n^2 - 12n + 1$$

$$10. 5j^2 - j - 2j + 5j + 5 - 3j - 9j + 5j + j^2 - 2j \\ = 6j^2 - 7j + 5$$