Simplifying Quadratic Expressions (E)

Simplify each expression by combining like terms.

1. $-7w + 2 - 2w^2 - 4 + 4w - 4 + 8w + 8w^2$

2. $-5s^2 + 9s + 3 + 3s^2 + 9s^2 + 2 + 8s^2 + 1$

3. $7g + 5g - g^2 + 7g + 5 - 5 + 6g + 5g^2$

4. $8 + s^2 + 2s^2 + 9s^2 + 6s + 6 - 9s + 3s$

5. $-7r^2 - 3 + 7r - 5 + 6r - 3 + 1 - 7r^2$

6. $8 - 9 - 5 - 6t + 3 + 3t^2 - 4t^2 + 1$

7. $-6m^2 - m^2 - 9m^2 - 6m + 7 + 2m - 9m^2 - 7m^2$

8. $4j + 7j + 9 - 7j^2 - 5j^2 - 9 - 4 + 4j^2$

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

10. $4 + 9v - 8v^2 - 5v^2 - 9v^2 - 7v^2 + 9v - 9v^2$

Simplifying Quadratic Expressions (E) Answers

Simplify each expression by combining like terms.

1. $-7w + 2 - 2w^2 - 4 + 4w - 4 + 8w + 8w^2$
   $= 6w^2 + 5w - 6$

2. $-5s^2 + 9s + 3 + 3s^2 + 9s^2 + 2 + 8s^2 + 1$
   $= 15s^2 + 9s + 6$

3. $7g + 5g - g^2 + 7g + 5 - 5 + 6g + 5g^2$
   $= 4g^2 + 25g$

4. $8 + s^2 + 2s^2 + 9s^2 + 6s + 6 - 9s + 3s$
   $= 12s^2 + 14$

5. $-7r^2 - 3 + 7r - 5 + 6r - 3 + 1 - 7r^2$
   $= -14r^2 + 13r - 10$

6. $8 - 9 - 5 - 6t + 3 + 3t^2 - 4t^2 + 1$
   $= -t^2 - 6t - 2$

7. $-6m^2 - m^2 - 9m^2 - 6m + 7 + 2m - 9m^2 - 7m^2$
   $= -32m^2 - 4m + 7$

8. $4j + 7j + 9 - 7j^2 - 5j^2 - 9 - 4 + 4j^2$
   $= -8j^2 + 11j - 4$

9. $2b^2 - 9 - 6b^2 - 5b^2 + 4 - 6 + 3b^2 + b^2$
   $= -5b^2 - 11$

10. $4 + 9v - 8v^2 - 5v^2 - 9v^2 - 7v^2 + 9v - 9v^2$
    $= -38v^2 + 18v + 4$

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