

# Adding & Subtracting Quadratic Expressions (A)

Simplify each expression.

1.  $-8(-5t^2 + 2t + 2) + 9(-6t^2 + 2t - 8)$

2.  $(7m^2 + 9m - 8) - 5(-7m^2 - 4m - 1)$

3.  $2(-3w^2 - 7w + 2) + 9(4w^2 + 2w + 7)$

4.  $2(-w^2 + w - 4) + 9(9w^2 - w + 9)$

5.  $(2v^2 + 5v - 8) + (-9v^2 + 3v - 6)$

6.  $(-7r^2 - 5r + 8) + 5(8r^2 - 4r + 1)$

7.  $(-7b^2 - 3b - 9) - 7(8b^2 + 9b + 6)$

8.  $(-4h^2 + 5h - 8) - (-h^2 - 3h - 2)$

9.  $(9b^2 + 4b - 2) - 4(9b^2 + 2)$

10.  $(-9z^2 + 8z - 5) - 7(8z^2 + 9z + 4)$

# Adding & Subtracting Quadratic Expressions (A) Answers

Simplify each expression.

1.  $-8(-5t^2 + 2t + 2) + 9(-6t^2 + 2t - 8)$   
 $-14t^2 + 2t - 88$

2.  $(7m^2 + 9m - 8) - 5(-7m^2 - 4m - 1)$   
 $42m^2 + 29m - 3$

3.  $2(-3w^2 - 7w + 2) + 9(4w^2 + 2w + 7)$   
 $30w^2 + 4w + 67$

4.  $2(-w^2 + w - 4) + 9(9w^2 - w + 9)$   
 $79w^2 - 7w + 73$

5.  $(2v^2 + 5v - 8) + (-9v^2 + 3v - 6)$   
 $-7v^2 + 8v - 14$

6.  $(-7r^2 - 5r + 8) + 5(8r^2 - 4r + 1)$   
 $33r^2 - 25r + 13$

7.  $(-7b^2 - 3b - 9) - 7(8b^2 + 9b + 6)$   
 $-63b^2 - 66b - 51$

8.  $(-4h^2 + 5h - 8) - (-h^2 - 3h - 2)$   
 $-3h^2 + 8h - 6$

9.  $(9b^2 + 4b - 2) - 4(9b^2 + 2)$   
 $-27b^2 + 4b - 10$

10.  $(-9z^2 + 8z - 5) - 7(8z^2 + 9z + 4)$   
 $-65z^2 - 55z - 33$

# Adding & Subtracting Quadratic Expressions (B)

Simplify each expression.

1.  $(9v^2 - 7v + 3) - (-2v^2 - 4v + 4)$

2.  $-5(7v^2 - 2v + 6) - (-2v^2 + v + 7)$

3.  $(3a^2 + 6a + 6) - (3a^2 - a + 7)$

4.  $(-7g^2 - 9g + 6) + (-3g^2 + 3g - 8)$

5.  $3(-9h^2 + 6h - 1) - (7h^2 - 3h + 8)$

6.  $(-5b^2 - 8b - 7) + 5(9b^2 + b - 1)$

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

8.  $(9r^2 + 8r + 4) - (8r^2 + r + 7)$

9.  $-6(5m^2 - 2m + 4) - (-7m^2 - 7m + 3)$

10.  $-8(r^2 + 7r + 4) + (-4r^2 - r - 4)$

# Adding & Subtracting Quadratic Expressions (B) Answers

Simplify each expression.

1.  $(9v^2 - 7v + 3) - (-2v^2 - 4v + 4)$   
 $11v^2 - 3v - 1$

2.  $-5(7v^2 - 2v + 6) - (-2v^2 + v + 7)$   
 $-33v^2 + 9v - 37$

3.  $(3a^2 + 6a + 6) - (3a^2 - a + 7)$   
 $7a - 1$

4.  $(-7g^2 - 9g + 6) + (-3g^2 + 3g - 8)$   
 $-10g^2 - 6g - 2$

5.  $3(-9h^2 + 6h - 1) - (7h^2 - 3h + 8)$   
 $-34h^2 + 21h - 11$

6.  $(-5b^2 - 8b - 7) + 5(9b^2 + b - 1)$   
 $40b^2 - 3b - 12$

7.  $(-5v^2 + 6v - 1) - (-4v^2 - 4v - 1)$   
 $-v^2 + 10v$

8.  $(9r^2 + 8r + 4) - (8r^2 + r + 7)$   
 $r^2 + 7r - 3$

9.  $-6(5m^2 - 2m + 4) - (-7m^2 - 7m + 3)$   
 $-23m^2 + 19m - 27$

10.  $-8(r^2 + 7r + 4) + (-4r^2 - r - 4)$   
 $-12r^2 - 57r - 36$

# Adding & Subtracting Quadratic Expressions (C)

Simplify each expression.

1.  $(-9t^2 - 2t + 7) + 6(-2t^2 - 8t + 7)$

2.  $-(5s^2 + 6s + 4) - (8s^2 + 8s + 3)$

3.  $8(-3x^2 - 7x - 6) - 6(5x^2 - 8x + 8)$

4.  $(6g^2 - 4g + 2) - 9(-9g^2 - 9g - 1)$

5.  $(-4b^2 - 9b - 7) + (2b^2 + 2b + 9)$

6.  $(4m^2 - 4m + 7) - 4(m^2 - 4m + 3)$

7.  $(-2b^2 + 9b - 9) - 5(-4b^2 - 3b - 9)$

8.  $-2(-3z^2 - 8z - 9) + 4(2z^2 - 8z + 2)$

9.  $3(4f^2 - 7f - 6) + 7(-5f^2 + 3f - 2)$

10.  $7(8b^2 + 2b - 8) - (-8b^2 + b - 3)$

# Adding & Subtracting Quadratic Expressions (C) Answers

Simplify each expression.

1.  $(-9t^2 - 2t + 7) + 6(-2t^2 - 8t + 7)$   
 $-21t^2 - 50t + 49$

2.  $-(5s^2 + 6s + 4) - (8s^2 + 8s + 3)$   
 $-13s^2 - 14s - 7$

3.  $8(-3x^2 - 7x - 6) - 6(5x^2 - 8x + 8)$   
 $-54x^2 - 8x - 96$

4.  $(6g^2 - 4g + 2) - 9(-9g^2 - 9g - 1)$   
 $87g^2 + 77g + 11$

5.  $(-4b^2 - 9b - 7) + (2b^2 + 2b + 9)$   
 $-2b^2 - 7b + 2$

6.  $(4m^2 - 4m + 7) - 4(m^2 - 4m + 3)$   
 $12m - 5$

7.  $(-2b^2 + 9b - 9) - 5(-4b^2 - 3b - 9)$   
 $18b^2 + 24b + 36$

8.  $-2(-3z^2 - 8z - 9) + 4(2z^2 - 8z + 2)$   
 $14z^2 - 16z + 26$

9.  $3(4f^2 - 7f - 6) + 7(-5f^2 + 3f - 2)$   
 $-23f^2 - 32$

10.  $7(8b^2 + 2b - 8) - (-8b^2 + b - 3)$   
 $64b^2 + 13b - 53$

# Adding & Subtracting Quadratic Expressions (D)

Simplify each expression.

1.  $(-8y^2 - 2y - 6) - 8(-6y^2 - 3y - 5)$

2.  $(4y^2 + y - 1) + 2(y^2 + 4y + 2)$

3.  $(5q^2 + 9q - 2) + (7q^2 - 6q + 2)$

4.  $(-9v^2 - 3v - 3) + (5v^2 + 9v + 9)$

5.  $-9(-5g^2 + 5g - 7) + 9(4g^2 - 3g - 9)$

6.  $(2p^2 - 4p + 7) - (3p^2 - 3p - 5)$

7.  $-2(-7t + 1) + (-2t^2 + 4t + 2)$

8.  $(6t^2 - 9t - 7) + 6(6t^2 + 8)$

9.  $(c^2 - 4c + 6) - (4c^2 - 4c + 8)$

10.  $(-5n^2 + 2n + 6) + 4(6n - 4)$

# Adding & Subtracting Quadratic Expressions (D) Answers

Simplify each expression.

1.  $(-8y^2 - 2y - 6) - 8(-6y^2 - 3y - 5)$   
 $40y^2 + 22y + 34$

2.  $(4y^2 + y - 1) + 2(y^2 + 4y + 2)$   
 $6y^2 + 9y + 3$

3.  $(5q^2 + 9q - 2) + (7q^2 - 6q + 2)$   
 $12q^2 + 3q$

4.  $(-9v^2 - 3v - 3) + (5v^2 + 9v + 9)$   
 $-4v^2 + 6v + 6$

5.  $-9(-5g^2 + 5g - 7) + 9(4g^2 - 3g - 9)$   
 $81g^2 - 72g - 18$

6.  $(2p^2 - 4p + 7) - (3p^2 - 3p - 5)$   
 $-p^2 - p + 12$

7.  $-2(-7t + 1) + (-2t^2 + 4t + 2)$   
 $-2t^2 + 18t$

8.  $(6t^2 - 9t - 7) + 6(6t^2 + 8)$   
 $42t^2 - 9t + 41$

9.  $(c^2 - 4c + 6) - (4c^2 - 4c + 8)$   
 $-3c^2 - 2$

10.  $(-5n^2 + 2n + 6) + 4(6n - 4)$   
 $-5n^2 + 26n - 10$



# Adding & Subtracting Quadratic Expressions (E)

Simplify each expression.

1.  $3(-2w^2 + 9w + 3) - (8w^2 - 4w + 1)$

2.  $-2(3d^2 + 8d + 9) + (3d^2 - d - 7)$

3.  $(-8h^2 + 4h + 3) - 6(-7h^2 - 6h + 1)$

4.  $(-3x^2 + 4x + 4) - (4x^2 + 8x + 9)$

5.  $3(7y^2 + 7y + 8) - (4y^2 + 3y - 9)$

6.  $(6w^2 - 8w + 7) - 7(6w^2 - 8w + 8)$

7.  $(-4m^2 - 9m - 1) + 7(-9m^2 - 9m - 5)$

8.  $(5v^2 - 8v + 1) + (8v^2 - v + 2)$

9.  $(6d^2 + 7d + 2) + (-5d^2 + 3d + 1)$

10.  $4(s^2 + 3s - 5) + (4s^2 + 2s + 1)$

# Adding & Subtracting Quadratic Expressions (E) Answers

Simplify each expression.

1.  $3(-2w^2 + 9w + 3) - (8w^2 - 4w + 1)$   
 $-14w^2 + 31w + 8$

2.  $-2(3d^2 + 8d + 9) + (3d^2 - d - 7)$   
 $-3d^2 - 17d - 25$

3.  $(-8h^2 + 4h + 3) - 6(-7h^2 - 6h + 1)$   
 $34h^2 + 40h - 3$

4.  $(-3x^2 + 4x + 4) - (4x^2 + 8x + 9)$   
 $-7x^2 - 4x - 5$

5.  $3(7y^2 + 7y + 8) - (4y^2 + 3y - 9)$   
 $17y^2 + 18y + 33$

6.  $(6w^2 - 8w + 7) - 7(6w^2 - 8w + 8)$   
 $-36w^2 + 48w - 49$

7.  $(-4m^2 - 9m - 1) + 7(-9m^2 - 9m - 5)$   
 $-67m^2 - 72m - 36$

8.  $(5v^2 - 8v + 1) + (8v^2 - v + 2)$   
 $13v^2 - 9v + 3$

9.  $(6d^2 + 7d + 2) + (-5d^2 + 3d + 1)$   
 $d^2 + 10d + 3$

10.  $4(s^2 + 3s - 5) + (4s^2 + 2s + 1)$   
 $8s^2 + 14s - 19$

# Adding & Subtracting Quadratic Expressions (F)

Simplify each expression.

1.  $-3(-5t^2 - 3t - 5) + (-8t^2 - 2t + 2)$

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

3.  $(-x^2 - 7x - 9) + (4x^2 + 5x - 4)$

4.  $(-7r^2 - 2r + 2) + (-4r^2 - 4r - 8)$

5.  $(-4q^2 - 9q - 4) + (q^2 + 4q + 9)$

6.  $-(d^2 + 2) - 6(-9d^2 + 4d + 8)$

7.  $(-4d^2 - 7d + 8) - 4(8d^2 + 2d + 4)$

8.  $(7a^2 + 3a + 1) - 2(-5a^2 + 8a + 4)$

9.  $8(-8h^2 + 9h + 5) + 9(-8h^2 - 3h + 3)$

10.  $(g^2 - 7g + 4) + 8(-4g^2 - g - 4)$

# Adding & Subtracting Quadratic Expressions (F) Answers

Simplify each expression.

1.  $-3(-5t^2 - 3t - 5) + (-8t^2 - 2t + 2)$   
 $7t^2 + 7t + 17$

2.  $4(-5w^2 - 5w + 8) + (9w^2 + 9w + 3)$   
 $-11w^2 - 11w + 35$

3.  $(-x^2 - 7x - 9) + (4x^2 + 5x - 4)$   
 $3x^2 - 2x - 13$

4.  $(-7r^2 - 2r + 2) + (-4r^2 - 4r - 8)$   
 $-11r^2 - 6r - 6$

5.  $(-4q^2 - 9q - 4) + (q^2 + 4q + 9)$   
 $-3q^2 - 5q + 5$

6.  $-(d^2 + 2) - 6(-9d^2 + 4d + 8)$   
 $53d^2 - 24d - 50$

7.  $(-4d^2 - 7d + 8) - 4(8d^2 + 2d + 4)$   
 $-36d^2 - 15d - 8$

8.  $(7a^2 + 3a + 1) - 2(-5a^2 + 8a + 4)$   
 $17a^2 - 13a - 7$

9.  $8(-8h^2 + 9h + 5) + 9(-8h^2 - 3h + 3)$   
 $-136h^2 + 45h + 67$

10.  $(g^2 - 7g + 4) + 8(-4g^2 - g - 4)$   
 $-31g^2 - 15g - 28$

# Adding & Subtracting Quadratic Expressions (G)

Simplify each expression.

1.  $-8(-2q^2 + 6q + 4) - (-8q^2 + q + 8)$

2.  $(5z^2 - 3z - 7) + 5(-5z^2 - 9z - 9)$

3.  $(x^2 + 3x + 1) + (9x^2 + x + 1)$

4.  $(-f^2 - 8f) + 6(6f^2 + 8f - 2)$

5.  $2(-7x^2 + 8x + 1) + (-7x^2 - x - 7)$

6.  $(-w^2 - 2w + 6) - 4(w^2 - w + 7)$

7.  $8(-6s^2 + 2s + 5) - 5(-5s^2 - 7s - 9)$

8.  $(-4z^2 + 7z + 6) + 7(z^2 - 2z - 6)$

9.  $(-8r^2 + r - 1) - (-2r^2 - 4r + 8)$

10.  $(t^2 + 4t - 3) + (t^2 + 6t - 9)$

# Adding & Subtracting Quadratic Expressions (G) Answers

Simplify each expression.

1.  $-8(-2q^2 + 6q + 4) - (-8q^2 + q + 8)$   
 $24q^2 - 49q - 40$

2.  $(5z^2 - 3z - 7) + 5(-5z^2 - 9z - 9)$   
 $-20z^2 - 48z - 52$

3.  $(x^2 + 3x + 1) + (9x^2 + x + 1)$   
 $10x^2 + 4x + 2$

4.  $(-f^2 - 8f) + 6(6f^2 + 8f - 2)$   
 $35f^2 + 40f - 12$

5.  $2(-7x^2 + 8x + 1) + (-7x^2 - x - 7)$   
 $-21x^2 + 15x - 5$

6.  $(-w^2 - 2w + 6) - 4(w^2 - w + 7)$   
 $-5w^2 + 2w - 22$

7.  $8(-6s^2 + 2s + 5) - 5(-5s^2 - 7s - 9)$   
 $-23s^2 + 51s + 85$

8.  $(-4z^2 + 7z + 6) + 7(z^2 - 2z - 6)$   
 $3z^2 - 7z - 36$

9.  $(-8r^2 + r - 1) - (-2r^2 - 4r + 8)$   
 $-6r^2 + 5r - 9$

10.  $(t^2 + 4t - 3) + (t^2 + 6t - 9)$   
 $2t^2 + 10t - 12$

# Adding & Subtracting Quadratic Expressions (H)

Simplify each expression.

1.  $-7(4z^2 - 3z - 8) + (-9z^2 - 9z - 6)$

2.  $(-9k^2 + 3k - 1) - (-7k^2 - k + 1)$

3.  $(-2f^2 - 5f - 6) - (-6f^2 - 3f + 8)$

4.  $9(3n^2 - 5n - 8) - 8(-n^2 + 2n - 8)$

5.  $(-2n^2 - n + 3) + (-5n^2 + 9n + 3)$

6.  $(2w^2 - 4w + 5) - 9(3w^2 + 3w + 7)$

7.  $(5a^2 - 4a - 3) - (-8a^2 + 5a - 2)$

8.  $(-3h^2 + 5h + 2) + 6(-4h^2 + 8h - 4)$

9.  $(2q^2 - 3q + 5) + 7(-4q - 2)$

10.  $(5w^2 + 8w - 5) + 7(-w^2 + 4w - 4)$

# Adding & Subtracting Quadratic Expressions (H) Answers

Simplify each expression.

1.  $-7(4z^2 - 3z - 8) + (-9z^2 - 9z - 6)$   
 $-37z^2 + 12z + 50$

2.  $(-9k^2 + 3k - 1) - (-7k^2 - k + 1)$   
 $-2k^2 + 4k - 2$

3.  $(-2f^2 - 5f - 6) - (-6f^2 - 3f + 8)$   
 $4f^2 - 2f - 14$

4.  $9(3n^2 - 5n - 8) - 8(-n^2 + 2n - 8)$   
 $35n^2 - 61n - 8$

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

6.  $(2w^2 - 4w + 5) - 9(3w^2 + 3w + 7)$   
 $-25w^2 - 31w - 58$

7.  $(5a^2 - 4a - 3) - (-8a^2 + 5a - 2)$   
 $13a^2 - 9a - 1$

8.  $(-3h^2 + 5h + 2) + 6(-4h^2 + 8h - 4)$   
 $-27h^2 + 53h - 22$

9.  $(2q^2 - 3q + 5) + 7(-4q - 2)$   
 $2q^2 - 31q - 9$

10.  $(5w^2 + 8w - 5) + 7(-w^2 + 4w - 4)$   
 $-2w^2 + 36w - 33$



# Adding & Subtracting Quadratic Expressions (I)

Simplify each expression.

1.  $(8p^2 - 3p - 8) + 3(-3p^2 + 2p + 7)$

2.  $(-2s^2 + 2s + 7) + 4(3s^2 - 9s - 6)$

3.  $(7a^2 - a - 1) - (-6a^2 + 5a + 1)$

4.  $(-8y^2 + 9y - 1) + 5(y + 5)$

5.  $(-r^2 + 8r - 5) - 5(-6r^2 + 6r + 4)$

6.  $(9s^2 + 3s - 6) + (s^2 + 9s + 5)$

7.  $(-5v^2 + 7v + 7) - 4(-6v^2 - 6v + 5)$

8.  $8(8f^2 - 6f - 2) - 4(-8f^2 - 6f - 4)$

9.  $4(4z^2 - 2z + 9) - 8(-3z^2 - 3z + 2)$

10.  $-8(7m^2 - 6m + 9) - (-6m^2 + 5m - 7)$

# Adding & Subtracting Quadratic Expressions (I) Answers

Simplify each expression.

1.  $(8p^2 - 3p - 8) + 3(-3p^2 + 2p + 7)$   
 $-p^2 + 3p + 13$

2.  $(-2s^2 + 2s + 7) + 4(3s^2 - 9s - 6)$   
 $10s^2 - 34s - 17$

3.  $(7a^2 - a - 1) - (-6a^2 + 5a + 1)$   
 $13a^2 - 6a - 2$

4.  $(-8y^2 + 9y - 1) + 5(y + 5)$   
 $-8y^2 + 14y + 24$

5.  $(-r^2 + 8r - 5) - 5(-6r^2 + 6r + 4)$   
 $29r^2 - 22r - 25$

6.  $(9s^2 + 3s - 6) + (s^2 + 9s + 5)$   
 $10s^2 + 12s - 1$

7.  $(-5v^2 + 7v + 7) - 4(-6v^2 - 6v + 5)$   
 $19v^2 + 31v - 13$

8.  $8(8f^2 - 6f - 2) - 4(-8f^2 - 6f - 4)$   
 $96f^2 - 24f$

9.  $4(4z^2 - 2z + 9) - 8(-3z^2 - 3z + 2)$   
 $40z^2 + 16z + 20$

10.  $-8(7m^2 - 6m + 9) - (-6m^2 + 5m - 7)$   
 $-50m^2 + 43m - 65$

# Adding & Subtracting Quadratic Expressions (J)

Simplify each expression.

1.  $-5(-5x^2 - 6x + 6) - (6x^2 + 7x - 1)$

2.  $-(9g^2 - 8g - 2) - (4g^2 - 7g + 3)$

3.  $(-6n^2 + 6n + 5) - (-3n^2 + n - 6)$

4.  $-5(3s^2 + 8s - 1) - 8(-5s^2 + s + 2)$

5.  $8(-8n^2 - 9n - 6) - 2(-6n^2 - n - 9)$

6.  $9(7a^2 - 9a - 1) + 3(8a^2 - 2a + 1)$

7.  $-5(7x^2 + 9x + 1) - (-7x^2 - 3x + 1)$

8.  $(-6g^2 - 8g + 8) - (-9g^2 - 9g + 9)$

9.  $(-8a^2 + 8a - 3) - 5(-6a^2 - 7a - 9)$

10.  $-7(-7f^2 + 4f + 4) + 7(6f^2 - 3f - 2)$

# Adding & Subtracting Quadratic Expressions (J) Answers

Simplify each expression.

1.  $-5(-5x^2 - 6x + 6) - (6x^2 + 7x - 1)$   
 $19x^2 + 23x - 29$

2.  $-(9g^2 - 8g - 2) - (4g^2 - 7g + 3)$   
 $-13g^2 + 15g - 1$

3.  $(-6n^2 + 6n + 5) - (-3n^2 + n - 6)$   
 $-3n^2 + 5n + 11$

4.  $-5(3s^2 + 8s - 1) - 8(-5s^2 + s + 2)$   
 $25s^2 - 48s - 11$

5.  $8(-8n^2 - 9n - 6) - 2(-6n^2 - n - 9)$   
 $-52n^2 - 70n - 30$

6.  $9(7a^2 - 9a - 1) + 3(8a^2 - 2a + 1)$   
 $87a^2 - 87a - 6$

7.  $-5(7x^2 + 9x + 1) - (-7x^2 - 3x + 1)$   
 $-28x^2 - 42x - 6$

8.  $(-6g^2 - 8g + 8) - (-9g^2 - 9g + 9)$   
 $3g^2 + g - 1$

9.  $(-8a^2 + 8a - 3) - 5(-6a^2 - 7a - 9)$   
 $22a^2 + 43a + 42$

10.  $-7(-7f^2 + 4f + 4) + 7(6f^2 - 3f - 2)$   
 $91f^2 - 49f - 42$