

Subtracting Quadratic Expressions (A)

Simplify each expression.

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

2. $(-3r^2 + r - 9) - (-9r^2 + 2r + 6)$

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

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

5. $(5q^2 + 2q + 2) - (-5q^2 - 2q + 6)$

6. $(-9p^2 + 3p - 6) - (-9p^2 + 6p - 2)$

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

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

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

10. $(-8f^2 - 6f - 6) - (-7f^2 - f - 9)$

Subtracting Quadratic Expressions (A) Answers

Simplify each expression.

1. $(-9c^2 - 5c + 3) - (5c^2 + 8c + 7)$
 $-14c^2 - 13c - 4$

2. $(-3r^2 + r - 9) - (-9r^2 + 2r + 6)$
 $6r^2 - r - 15$

3. $(7w^2 - 4w - 5) - (-7w^2 + 3w - 2)$
 $14w^2 - 7w - 3$

4. $(3m^2 + 2m - 7) - (-8m^2 - 4m + 1)$
 $11m^2 + 6m - 8$

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

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

7. $(9x^2 - 3x + 9) - (-2x^2 + 2x + 2)$
 $11x^2 - 5x + 7$

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

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

10. $(-8f^2 - 6f - 6) - (-7f^2 - f - 9)$
 $-f^2 - 5f + 3$

Subtracting Quadratic Expressions (B)

Simplify each expression.

1. $(h^2 - 3h - 9) - (-9h^2 - 8h - 9)$

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

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

4. $(-3z^2 - 3z - 1) - (-8z^2 - 4z - 8)$

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

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

7. $(7f^2 - 7f + 5) - (8f^2 - 2f + 5)$

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

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

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

Subtracting Quadratic Expressions (B) Answers

Simplify each expression.

1. $(h^2 - 3h - 9) - (-9h^2 - 8h - 9)$
 $10h^2 + 5h$

2. $(4z^2 - 8z + 4) - (7z^2 + 9z + 5)$
 $-3z^2 - 17z - 1$

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

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

5. $(9k^2 - 3k + 2) - (-3k^2 - 7k - 2)$
 $12k^2 + 4k + 4$

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

7. $(7f^2 - 7f + 5) - (8f^2 - 2f + 5)$
 $-f^2 - 5f$

8. $(-9m^2 - 3m - 4) - (9m^2 - 5m + 1)$
 $-18m^2 + 2m - 5$

9. $(-3q^2 - q + 5) - (2q^2 - 9q - 5)$
 $-5q^2 + 8q + 10$

10. $(-2h^2 + 4) - (3h^2 - 7h + 4)$
 $-5h^2 + 7h$

Subtracting Quadratic Expressions (C)

Simplify each expression.

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

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

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

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

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

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

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

8. $(-3a^2 - 9a - 6) - (3a^2 - 4a + 5)$

9. $(9h^2 - 2h - 3) - (2h^2 + 6h + 6)$

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

Subtracting Quadratic Expressions (C) Answers

Simplify each expression.

1. $(-5a^2 - 7a + 2) - (7a^2 - 3a + 4)$
 $-12a^2 - 4a - 2$

2. $(3b^2 - 7b - 6) - (-5b^2 + 3b + 5)$
 $8b^2 - 10b - 11$

3. $(6z^2 + 2z + 6) - (-4z^2 + 8z + 8)$
 $10z^2 - 6z - 2$

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

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

6. $(-5h^2 + 9h + 9) - (8h^2 + 3h + 8)$
 $-13h^2 + 6h + 1$

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

8. $(-3a^2 - 9a - 6) - (3a^2 - 4a + 5)$
 $-6a^2 - 5a - 11$

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

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

Subtracting Quadratic Expressions (D)

Simplify each expression.

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

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

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

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

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

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

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

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

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

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

Subtracting Quadratic Expressions (D) Answers

Simplify each expression.

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

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

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

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

5. $(-7s^2 - 5s - 1) - (-2s^2 + 6s + 5)$
 $-5s^2 - 11s - 6$

6. $(5b^2 + 5b + 7) - (2b^2 + 5b - 3)$
 $3b^2 + 10$

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

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

9. $(-3h^2 - 5h) - (-2h^2 + 5h - 3)$
 $-h^2 - 10h + 3$

10. $(-v^2 + v - 5) - (-3v^2 - 4v + 1)$
 $2v^2 + 5v - 6$

Subtracting Quadratic Expressions (E)

Simplify each expression.

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

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

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

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

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

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

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

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

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

10. $(7a^2 - 2a) - (-5a^2 - 6a - 9)$

Subtracting Quadratic Expressions (E) Answers

Simplify each expression.

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

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

3. $(-4c^2 - 9c - 6) - (-6c^2 + 6c + 8)$
 $2c^2 - 15c - 14$

4. $(w^2 + 9w - 3) - (-9w^2 + 9w - 5)$
 $10w^2 + 2$

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

6. $(-2c^2 - 5c - 8) - (3c^2 + 8c - 5)$
 $-5c^2 - 13c - 3$

7. $(9n^2 - 3n - 8) - (3n^2 - 7n + 3)$
 $6n^2 + 4n - 11$

8. $(-8a^2 - 8a - 2) - (-3a^2 - 6a + 9)$
 $-5a^2 - 2a - 11$

9. $(3t^2 - 7t - 1) - (-7t^2 - 8t + 9)$
 $10t^2 + t - 10$

10. $(7a^2 - 2a) - (-5a^2 - 6a - 9)$
 $12a^2 + 4a + 9$

Subtracting Quadratic Expressions (F)

Simplify each expression.

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

2. $(-2z^2 - 2z - 1) - (7z^2 + 7z + 2)$

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

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

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

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

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

8. $(5c^2 - 7c - 4) - (-6c^2 - 8c - 4)$

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

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

Subtracting Quadratic Expressions (F) Answers

Simplify each expression.

1. $(5p^2 - 4p + 2) - (-9p^2 - 9p - 9)$
 $14p^2 + 5p + 11$

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

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

4. $(-6h^2 + 7h + 1) - (-3h^2 - 4h - 2)$
 $-3h^2 + 11h + 3$

5. $(9g^2 - g + 3) - (-5g^2 - 2g + 6)$
 $14g^2 + g - 3$

6. $(-2y^2 - 4y + 4) - (8y^2 + 3y - 1)$
 $-10y^2 - 7y + 5$

7. $(-c^2 + 3c - 5) - (3c^2 - 9c - 6)$
 $-4c^2 + 12c + 1$

8. $(5c^2 - 7c - 4) - (-6c^2 - 8c - 4)$
 $11c^2 + c$

9. $(9x^2 - 2x + 9) - (3x^2 - 8x - 8)$
 $6x^2 + 6x + 17$

10. $(4m^2 - 2m - 5) - (5m^2 + 5m - 3)$
 $-m^2 - 7m - 2$

Subtracting Quadratic Expressions (G)

Simplify each expression.

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

2. $(r^2 + 2r - 1) - (r^2 - 2r + 1)$

3. $(4f^2 - 6f - 3) - (4f^2 - 5f - 1)$

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

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

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

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

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

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

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

Subtracting Quadratic Expressions (G) Answers

Simplify each expression.

1. $(7s^2 - 2s + 7) - (-9s^2 - 8s - 3)$
 $16s^2 + 6s + 10$

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

3. $(4f^2 - 6f - 3) - (4f^2 - 5f - 1)$
 $-f - 2$

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

5. $(2a^2 - 3a - 1) - (a^2 + 8a - 7)$
 $a^2 - 11a + 6$

6. $(6q^2 - 3q - 4) - (5q^2 + 4q - 5)$
 $q^2 - 7q + 1$

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

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

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

10. $(2g^2 + 8g - 6) - (-2g^2 - 8g + 3)$
 $4g^2 + 16g - 9$

Subtracting Quadratic Expressions (H)

Simplify each expression.

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

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

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

4. $(4h^2 + h + 9) - (-7h + 7)$

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

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

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

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

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

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

Subtracting Quadratic Expressions (H) Answers

Simplify each expression.

1. $(9g^2 + g - 9) - (5g^2 + 4g + 9)$
 $4g^2 - 3g - 18$

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

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

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

5. $(3x^2 + 8x + 3) - (-5x^2 + 6x - 4)$
 $8x^2 + 2x + 7$

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

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

8. $(-4r^2 - 9r + 7) - (-6r^2 - 2r - 4)$
 $2r^2 - 7r + 11$

9. $(3b^2 - 6b + 3) - (-4b^2 + 7b + 7)$
 $7b^2 - 13b - 4$

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

Subtracting Quadratic Expressions (I)

Simplify each expression.

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

2. $(9p^2 - 4p - 5) - (-4p^2 - 7p - 4)$

3. $(4h^2 - 3h) - (9h^2 + 2h + 2)$

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

5. $(-4k^2 - 7k + 1) - (-5k^2 - 3k + 6)$

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

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

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

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

10. $(-b^2 + b + 5) - (5b^2 + 7b - 1)$

Subtracting Quadratic Expressions (I) Answers

Simplify each expression.

1. $(5w^2 + w - 6) - (-5w^2 + 4w - 2)$
 $10w^2 - 3w - 4$

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

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

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

5. $(-4k^2 - 7k + 1) - (-5k^2 - 3k + 6)$
 $k^2 - 4k - 5$

6. $(3x^2 + 3x - 3) - (-7x^2 - 9)$
 $10x^2 + 3x + 6$

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

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

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

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

Subtracting Quadratic Expressions (J)

Simplify each expression.

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

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

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

4. $(-9f^2 - 8f) - (5f^2 - 8f - 7)$

5. $(-3z^2 - 6z - 4) - (8z^2 - z - 9)$

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

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

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

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

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

Subtracting Quadratic Expressions (J) Answers

Simplify each expression.

1. $(-4y^2 + y + 6) - (8y^2 - 6y)$
 $-12y^2 + 7y + 6$

2. $(6x^2 - 9x - 4) - (-4x^2 - 3x + 7)$
 $10x^2 - 6x - 11$

3. $(9p^2 + p + 2) - (3p^2 + 5p + 3)$
 $6p^2 - 4p - 1$

4. $(-9f^2 - 8f) - (5f^2 - 8f - 7)$
 $-14f^2 + 7$

5. $(-3z^2 - 6z - 4) - (8z^2 - z - 9)$
 $-11z^2 - 5z + 5$

6. $(-7w^2 + 5w - 8) - (8w^2 - 8w - 8)$
 $-15w^2 + 13w$

7. $(8g^2 + 5g + 7) - (-8g^2 + 3g + 6)$
 $16g^2 + 2g + 1$

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

9. $(-5y^2 - 8y + 2) - (-7y^2 + 8y + 3)$
 $2y^2 - 16y - 1$

10. $(-6y^2 - 5y + 1) - (-7y^2 + 6y - 5)$
 $y^2 - 11y + 6$