

Homework 1.8 Factoring Quadratics Part 2

Factor each quadratic expression.

1. $3p^2 - 2p - 5$

2. $2n^2 + 3n - 9$

3. $3n^2 - 8n + 4$

4. $5n^2 + 19n + 12$

5. $2v^2 + 11v + 5$

6. $2n^2 + 5n + 2$

7. $7a^2 + 53a + 28$

8. $9k^2 + 66k + 21$

9. $15n^2 - 27n - 6$

10. $5x^2 - 18x + 9$

11. $4n^2 - 15n - 25$

12. $4x^2 - 35x + 49$

13. $4n^2 - 17n + 4$

14. $6x^2 + 7x - 49$

15. $6x^2 + 37x + 6$

16. $-6a^2 - 25a - 25$

17. $6n^2 + 5n - 6$

18. $16b^2 + 60b - 100$

19. The area of a rectangle is represented by the expression $5x^2 + 12x + 7$. The width is given as $(x + 1)$. What is an expression for the length?

Factor each quadratic expression.

1. $3p^2 - 2p - 5$

$$= (3p - 5)(p + 1)$$

2. $2n^2 + 3n - 9$

$$= (2n - 3)(n + 3)$$

3. $3n^2 - 8n + 4$

$$= (3n - 2)(n - 2)$$

4. $5n^2 + 19n + 12$

$$= (5n + 4)(n + 3)$$

5. $2v^2 + 11v + 5$

$$= (2v + 1)(v + 5)$$

6. $2n^2 + 5n + 2$

$$= (2n + 1)(n + 2)$$

7. $7a^2 + 53a + 28$

$$= (7a + 4)(a + 7)$$

8. $9k^2 + 66k + 21$

$$= 3(3k + 1)(k + 7)$$

9. $15n^2 - 27n - 6$

$$= 3(5n + 1)(n - 2)$$

10. $5x^2 - 18x + 9$

$$= (5x - 3)(x - 3)$$

11. $4n^2 - 15n - 25$

$$= (n - 5)(4n + 5)$$

12. $4x^2 - 35x + 49$

$$= (x - 7)(4x - 7)$$

13. $4n^2 - 17n + 4$

$$= (n - 4)(4n - 1)$$

14. $6x^2 + 7x - 49$

$$= (3x - 7)(2x + 7)$$

15. $6x^2 + 37x + 6$

$$= (x + 6)(6x + 1)$$

16. $-6a^2 - 25a - 25$

$$= -(2a + 5)(3a + 5)$$

17. $6n^2 + 5n - 6$

$$= (2n + 3)(3n - 2)$$

18. $16b^2 + 60b - 100$

$$= 4(b + 5)(4b - 5)$$

19. The area of a rectangle is represented by the expression $5x^2 + 12x + 7$. The width is given as $(x + 1)$. What is an expression for the length?

$$= (5x + 7)$$