

Solve each equation by factoring.

1. $(x + 1)(x - 5) = 0$

2. $(a + 1)(a + 2) = 0$

3. $(4x + 5)(x + 1) = 0$

4. $(2m + 3)(4m + 1) = 0$

5. $n^2 - 10n + 24 = 0$

6. $n^2 + 3n - 18 = 0$

7. $r^2 - 2r + 1 = 0$

8. $a^2 + 8a + 15 = 0$

9. $x^2 - 9x + 18 = 0$

10. $x^2 + 5x + 4 = 0$

11. $x^2 - 11x + 25 = -3$

12. $k^2 + 15k + 6 = -50$

13. $x^2 + 17x + 49 = 3x$

14. $x^2 + 6x + 1 = -3 + x$

15. The length of a rectangle is $(x + 8)$ feet and the width is x . The area of the rectangle is 84 square feet. Find its length and width.

16. Two consecutive numbers can be expressed as (x) and $(x + 1)$. The product of the two consecutive integers is 72. What are the two numbers?