

Factoring $ax^2 \pm bx + c$

1. $2x^2 + 11x + 12 = (x + 4)(2x + 3)$
2. $2x^2 + 5x + 2 = (x + 2)(2x + 1)$
3. $3x^2 + 4x + 1 = (x + 1)(3x + 1)$
4. $2x^2 + 3x + 1 = (x + 1)(2x + 1)$
5. $3x^2 + 13x + 4 = (x + 4)(3x + 1)$
6. $3x^2 + 19x + 28 = (x + 4)(3x + 7)$
7. $6x^2 + 11x + 3 = (2x + 3)(3x + 1)$
8. $6x^2 + 17x + 12 = (2x + 3)(3x + 4)$
9. $4x^2 + 19x + 21 = (x + 3)(4x + 7)$
10. $8x^2 + 10x + 3 = (2x + 1)(4x + 3)$
11. $2x^2 + 13x + 15 = (x + 5)(2x + 3)$
12. $6x^2 + 25x + 14 = (2x + 7)(3x + 2)$
13. $2x^2 - 11x + 12 = (x - 4)(2x - 3)$
14. $3x^2 - 14x + 8 = (x - 4)(3x - 2)$
15. $6x^2 - 19x + 10 = (2x - 5)(3x - 2)$
16. $2x^2 - 11x + 15 = (x - 3)(2x - 5)$
17. $3x^2 - 22x + 7 = (x - 7)(3x - 1)$
18. $4x^2 - 23x + 15 = (x - 5)(4x - 3)$
19. $8x^2 - 14x + 3 = (2x - 3)(4x - 1)$
20. $14x^2 - 13x + 3 = (2x - 1)(7x - 3)$
21. $3x^2 - 16x + 16 = (x - 4)(3x - 4)$
22. $10x^2 - 29x + 10 = (2x - 5)(5x - 2)$
23. $6x^2 - 17x + 12 = (2x - 3)(3x - 4)$
24. $32x^2 - 20x + 3 = (4x - 1)(8x - 3)$
25. $9x^2y^2 - 48x^2y + 48x^2 = 3x^2(y - 4)(3y - 4)$
26. $6m^2n - 26mn + 24n = 2n(m - 3)(3m - 4)$
27. $9x^2 - 24x + 16 = (3x - 4)(3x - 4)$
28. $20x^3y^2 - 4x^2y^2 + 84xy^2 = 4xy^2(5x^2 - x + 2)$
29. $3a^2 + 10ab + 3b^2 = (a + 3b)(3a + b)$
30. $18a^2 - 12a + 2 = 2(3a - 1)(3a - 1)$
31. $4y^3 - 7y^2 + 3y = y(y - 1)(4y - 3)$
32. $98x^2 - 28x + 2 = 2(7x - 1)(7x - 1)$
33. $8x^3 - 72x^2 + 162x = 2x(2x - 9)(2x - 9)$
34. $10 - 19a + 6a^2 = (2a - 5)(3a - 2)$
35. $9y^2 - 31 + 12 = (y - 3)(9y - 4)$
36. $12 - 31x + 20x^2 = (4x - 3)(5x - 4)$
37. $6p^2 + 13pq + 6q^2 = (2p + 3q)(3p + 2q)$
38. $3x^2 - 10xy + 8y^2 = (x - 2y)(3x - 4y)$
39. $9a^2 - 18ab + 5b^2 = (3a - b)(3a - 5b)$
40. $2r^4 - 11r^2p + 15p^2 = (2r^2 - 5p)(r^2 - 3p)$
41. $14k^4 + 23k^2x^2 + 8x^4 = (x^2 + 2k^2)(8x^2 + 7k^2)$
42. $b^4c^2 - 7b^2cd + 12d^2 = (b^2c - 3d)(b^2c - 4d)$
43. $u^2x^6 + 11ux^3y^2 + 18y^4 = (ux^3 + 2y^2)(ux^3 + 9y^2)$
44. $5r^2 + 19rpt^2 + 18p^2t^4 = (2pt^2 + r)(9pt^2 + 5r)$
45. $18(h - k)^2 - 11m(h - k) + m^2 =$
 $[9(h - k) - m][2(h - k) - m]$
46. $6(k - 1)^2 - 11(k - 1) + 3 =$
 $[3(k - 1) - 1][2(k - 1) - 3]$