

2.1 Factoring out GCD

1. $x^2(3 + 5x^3)$
2. $5(a^2 - 5)$
3. $16(1 + 4xy)$
4. $2a(1 - a)$
5. $15a^2(1 - 12a^2)$
6. $x^2(x - 1)$
7. $a(a + b)$
8. $2a^3(3 + a + 2a^2)$
9. $7x(1 - x^2 + 2x^3)$
10. $x(3x^2 - x + 1)$
11. $a(a^2 - ay + y^2)$
12. $(x + y)(3a + 5mb - 9d^2x)$
13. $(a - b)(4 - 15xy + 1 - 5a^2) = (a - b)(5 - 15xy - 5a^2)$
14. $4x(x^2y - 3ax - 2y^3)$
15. $2axy^5(3x^2 - 2xy + y^2 - ay^4)$
16. $17x^2y(3x^3 - 2x^2y + y^3)$
17. $3ab(2ab - a^2b^2c - 3b^2c + c)$
18. $3ax(x^6 - 8 + 9x^4 - x^3 - 3x^5)$
19. $x(7x - 20)$
20. $xy(x^2 - 3xy + 7y^2)$
21. $(a+2)(x+7)$
22. $x(x+2) + 2y(x+2) = (x+2)(x+2y)$
23. $a(x+y) + b(x+y) = (x+y)(a+b)$
24. $x(x+a) + b(x+a) = (x+a)(x+b)$
25. $a(x^2 - y^2) - b(x^2 - y^2) = (x^2 - y^2)(a - b)$
26. $x(x - a) + 5(x - a) = (x - a)(x + 5)$
27. $x(x + my) - 4y(x + my) = (x + my)(x - 4y)$
28. $x^3(2x - 1) + 2(2x - 1) = (2x - 1)(x^3 + 2)$
29. $m(x - a) - n(x - a) = (x - a)(m - n)$
30. $x^2(x + 1) + 1(x + 1) = (x + 1)(x^2 + 1)$
31. $y^2(y - 1) + 1(y - 1) = (y - 1)(y^2 + 1)$
32. $3a(x + y) - 2b(x + y) = (x + y)(3a - 2b)$
33. $3am(2x + y) - 3an(2x + y) = (2x + y)(3am - 3an)$
34. $x(x - 2) - 3y(x - 2) = (x - 2)(1 - 3y)$
35. $x^2 + 3x - 10$
36. $x^2 - 25$
37. $x^3 + 15x^2 + 74x + 120$