

MIXED FACTOR REVIEW

NAME _____

Factoring All Polynomials

1. $9x^2 - 4$

2. $x^3 + 64$

3. $200x^2 - 50$

4. $7x^3 + 14x^2 + 7x$

5. $2x^3 - 4x^2 - 3x - 6$

6. $3x^2 + 81$

7. $2x^2 - x - 3$

8. $x^2 + 3x - 10$

9. $x^2 + 8x + 16$

10. $4x^2 - 20x + 25$

11. $2x^2 - 5x + 2$

12. $3x^2 - 11x - 20$

13. $x^3 - 3x^2 - 5x + 15$

14. $3x^4 - 11x^2 - 20$

15. $4x^2 - 49$

16. $x^2 - 18x + 81$

17. $16x^2 - 81$

18. $2x^3 - 3x^2 + 4x - 6$

19. $8x^3 - 27y^3$

20. $x^4 - 4x^2 + 3$

21. $12abx^2 + 6a^2bx^3 - 30ab^3$

22. $5a^2 - 25a$

23. $3a^4b^2m - 75a^3bm^4$

24. $3x^2 - 48$

25. $8x^3 - 64$

26. $x^2 + 3x - 18$

27. $200x^2 - 50$

28. $18x^3 + 30x^2 + 3x + 5$

29. $3x^3 + 24$

30. $10x^3 - 20x^2 - 2x + 4$

31. $5x^2 - 32x - 21$

32. $4x^2 + 20x + 9$

33. $15x^3 - 25x^2 + 75x - 125$

34. $x^2 + 15x + 56$

35. $28x^3 - 7x$

36. $216x^3 + 1$

37. $12x^2 - 44x + 7$

38. $6x + 21$

39. $16x^8y^4 - 81z^4$

40. $18x^3 - 2x^2 + 27x - 3$

41. $32x^3 - 4$

42. $8x^2 + 10x - 25$

43. $x^2 + 5x - 36$

44. $2x^2 + 20x + 48$

ANSWERS

Factoring All Polynomials

- $(3x+2)(3x-2)$
- $(x+4)(x^2-4x+16)$
- $50(2x+1)(2x-1)$
- $7x(x+1)(x+1)$
- Prime
- $3(x^2+27)$
- $(2x-3)(x+1)$
- $(x+5)(x-2)$
- $(x+4)(x+4)$
- $(2x-5)(2x-5)$
- $(x-2)(2x-1)$
- $(3x+4)(x-5)$
- $(x^2-5)(x-3)$
- $(2x+7)(2x-7)$
- $(3x^2+4)(x^2-5)$
- $(x-9)(x-9)$
- $(4x+9)(4x-9)$
- $(x^2+2)(2x-3)$
- $(2x-3y)(4x^2+6xy+9y^2)$
- $(x^2-3)(x+1)(x-1)$
- $6ab(2x^2+ax^3-5b^2)$
- $5a(a-5)$
- $3a^3bm(ab-25m^3)$
- $3(x+4)(x-4)$
- $8(x-2)(x^2+2x+4)$
- $(x+6)(x-3)$
- $50(2x+1)(2x-1)$
- $(6x^2+1)(3x+5)$
- $3(x+2)(x^2-2x+4)$
- $2(5x^2-1)(x-2)$
- $(x-7)(5x+3)$
- $(2x+9)(2x+1)$
- $5(x^2+5)(3x-5)$
- $(x+7)(x+8)$
- $7x(2x+1)(2x-1)$
- $(6x+1)(36x^2-6x+1)$
- $(2x-7)(6x-1)$
- $3(2x+7)$
- $(2x^2y+3z)(2x^2y-3z)(4x^4y^2+9z^2)$
- $(9x-1)(2x^2+3)$
- $4(2x-1)(4x^2+2x+1)$
- $(4x-5)(2x+5)$
- $(x+9)(x-4)$
- $2(x+6)(x+4)$