

Factor:

$$1. \ 3x^2 + 12x - 15$$

$$2. \ 2x^2 + 6x - 20$$

$$3. \ 10x^2 + 24x + 8$$

$$4. \ 3x^2 - 15x + 12$$

$$5. \ 10x^2 - 30x + 20$$

$$6. \ 6x^2 + 3x - 9$$

$$7. \ 10x^2 - 8x - 2$$

$$8. \ 4x^2 + 10x + 6$$

$$9. \ 12x^2 + 20x + 8$$

$$10. \ 9x^2 + 24x + 15$$

$$11. \ 4x^2 + 10x + 6$$

$$12. \ 9x^2 + 6x - 3$$

$$13. \ 15x^2 - 42x + 27$$

$$14. \ 20x^2 - 18x - 14$$

$$15. \ 9x^2 - 12x + 3$$

$$16. \ 8x^2 - 24x + 16$$

$$17. \ 12x^2 - 10x - 42$$

$$18. \ 15x^2 - 60x + 45$$

$$19. \ 15x^2 - 5x - 20$$

$$20. \ 8x^2 + 32x + 24$$

$$21. \ 15x^2 - 55x + 40$$

$$22. \ 9x^2 + 15x - 24$$

$$23. \ 16x^2 - 68x + 72$$

$$24. \ 4x^2 - 28x + 48$$

$$25. \ 8x^2 - 4x - 40$$

$$26. \ 20x^2 + 44x + 24$$

$$27. \ 8x^2 - 44x + 48$$

$$28. \ 6x^2 + 4x - 2$$

$$29. \ 10x^2 - 26x + 16$$

$$30. \ 6x^2 - 9x - 6$$

$$31. \ 20x^2 - 4x - 24$$

$$32. \ 4x^2 + 14x + 6$$

$$33. \ 15x^2 - 63x + 54$$

$$34. \ 10x^2 + 5x - 5$$

$$35. \ 10x^2 + 8x - 24$$

$$36. \ 12x^2 - 30x - 18$$

$$37. \ 9x^2 - 6x - 15$$

$$38. \ 12x^2 - 39x + 27$$

$$39. \ 6x^2 - 3x - 30$$

$$40. \ 12x^2 + 18x - 12$$

Answers:

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|-------------------------|------------------------|
| 1. $3(x - 1)(x + 5)$ | 21. $5(x - 1)(3x - 8)$ |
| 2. $2(x - 2)(x + 5)$ | 22. $3(3x + 8)(x - 1)$ |
| 3. $2(5x + 2)(x + 2)$ | 23. $4(4x - 9)(x - 2)$ |
| 4. $3(x - 4)(x - 1)$ | 24. $4(x - 4)(x - 3)$ |
| 5. $10(x - 1)(x - 2)$ | 25. $4(x + 2)(2x - 5)$ |
| 6. $3(x - 1)(2x + 3)$ | 26. $4(x + 1)(5x + 6)$ |
| 7. $2(5x + 1)(x - 1)$ | 27. $4(x - 4)(2x - 3)$ |
| 8. $2(2x + 3)(x + 1)$ | 28. $2(3x - 1)(x + 1)$ |
| 9. $4(x + 1)(3x + 2)$ | 29. $2(x - 1)(5x - 8)$ |
| 10. $3(3x + 5)(x + 1)$ | 30. $3(2x + 1)(x - 2)$ |
| 11. $2(x + 1)(2x + 3)$ | 31. $4(x + 1)(5x - 6)$ |
| 12. $3(3x - 1)(x + 1)$ | 32. $2(x + 3)(2x + 1)$ |
| 13. $3(x - 1)(5x - 9)$ | 33. $3(5x - 6)(x - 3)$ |
| 14. $2(5x - 7)(2x + 1)$ | 34. $5(x + 1)(2x - 1)$ |
| 15. $3(3x - 1)(x - 1)$ | 35. $2(x + 2)(5x - 6)$ |
| 16. $8(x - 2)(x - 1)$ | 36. $6(x - 3)(2x + 1)$ |
| 17. $2(3x - 7)(2x + 3)$ | 37. $3(x + 1)(3x - 5)$ |
| 18. $15(x - 3)(x - 1)$ | 38. $3(x - 1)(4x - 9)$ |
| 19. $5(x + 1)(3x - 4)$ | 39. $3(x + 2)(2x - 5)$ |
| 20. $8(x + 3)(x + 1)$ | 40. $6(2x - 1)(x + 2)$ |