

Factoring:

Common Factors

$$1. 3x - 9y$$

$$2. 8a + 12b$$

$$3. 6ax + 9ay$$

$$4. 7x - 49$$

$$5. 12xy + 15xz$$

$$6. 27abc - 63bcd$$

$$7. 12x + 24y - 36z$$

$$8. 54x + 72y - 108z$$

$$9. 5a^2 - 15ab$$

$$10. 3x^2y - 5xy^2$$

$$11. 4a^3 + 6a^2y^2$$

$$12. \frac{2}{3}x^2 - \frac{4}{3}x$$

$$13. \frac{4}{3}\pi r^3 - \frac{2}{3}\pi r^2$$

$$14. \frac{5}{6}x^2 - \frac{1}{2}ax$$

$$15. 14at^2 + 10a^2t$$

$$16. 6a^2x^2y^4 - 3ax^5y^2$$

$$17. m^2x^2 + mx^3$$

$$18. 3x^3 - 12x^2 + 15x$$

$$19. 6a^2x + 8axy - 14az$$

$$20. 5x^2 - 10xy + 15x$$

$$21. 3m^2 + 12mn + 6m$$

$$22. 24x^2y^2 - 6y + 12xy$$

$$23. 2x^2y^2z^2 - x^3y^3z + xy^2z^3$$

$$24. 24ab^2x - 21ax + 9x^3$$

$$25. 121a^3x + 66a^2x - 88ax^2$$

$$26. 78m^2n + 52m^2n^3 - 39m^2$$

$$27. 4(x - y) + a(x - y)$$

$$28. 5x(2a - b) - 3(2a - b)$$

$$29. 3(4x - 5y)^3 - a(4x - 5y)^2$$

$$30. \frac{2}{3}x^2y - \frac{8}{9}x^2y^2 + \frac{4}{3}x^4y^3$$

$$31. \frac{3}{4}x^2 + \frac{2}{3}x - \frac{5}{12}x^3$$

$$32. x^3 - x^5y^6 + 3x^7y^2 - 4x^4y^3$$

$$33. 3x^3y^2z^3 - 12xyz^2 + x^2yz^2 + 4x^2y^2z^2$$

$$34. 12(x^2 - 3x + 5)^3 + 20(x^2 - 3x + 5)^2 - 36(x^2 - 3x + 5)^4$$