

$$1. y' 2x + 4yy' = x + 2y - 8 + y'$$

$$2. \frac{dy}{dx} = \frac{x+y+4}{x+y-6} \quad \left. \vphantom{\frac{dy}{dx}} \right\} 3 \text{ finales}$$

$$3. x^2 y' - 3xy - 2y^2 = 0$$

$$4. y' = \frac{y+1}{\sqrt{x} + \sqrt{xy}}$$

$$5. y'' + 9y = 5x + 2 \quad y(0) = 5; y'(0) = -1 \quad \text{laplace y cond. in}$$

$$6. y' + x^2 y' - 2xy - 2x - 2x^3 = 0$$

$$7. y' + y = \cos x$$

$$8. y'' - 9y = x + e^{2x} - \sin 2x$$

$$9. \frac{dy}{dx} = \frac{xy - 3y + x - 3}{xy + 2y - x - 2} \quad \left. \vphantom{\frac{dy}{dx}} \right\} x 4 \text{ (4 finales)}$$

$$10. xy' - e^{2x} + y = xy$$

$$11. y'' - 5y' + 6y = e^{-x} \quad y'(0) = 2; y(0) = 0 \quad \text{laplace y cond. in}$$

$$12. (x^3 + y^3) dx - xy^2 dy = 0$$

$$13. (4y + yx^2) dy - x(2 + y^2) dx = 0$$

$$14. \frac{dy}{dx} = \frac{(y-1)(x-2)(y+3)}{(x-1)(y-2)(x+3)}$$

$$15. \frac{d^2 y}{dx^2} - 3 \frac{dy}{dx} + 2y = e^{3x} \quad \text{X Variación de parámetros}$$

$$16. x dx + (y - 2x) dy = 0$$

$$17. (2x - 2y) dx + (y - 1) dy = 0$$

$$18. y' = \frac{y^2 - 2xy - x^2}{y^2 + 2xy - x^2}$$

$$19. y'' + y = x$$

$$20. y'' + y = \tan x$$

$$21. y'' + y = \sec x$$

} Variación de Parámetros