

$$8.20. \quad x \frac{dy}{dx} = x + y.$$

$$8.21. \quad (y - 2x) \frac{dy}{dx} = 2y + x.$$

$$8.22. \quad x + y + x \frac{dy}{dx} = 0.$$

$$8.23. \quad 8y + 10x + (5y + 7x) \frac{dy}{dx} = 0.$$

$$8.24. \quad (x + y) \frac{dy}{dx} + y = 0.$$

$$8.25. \quad (x + y) \frac{dy}{dx} - y = 0.$$

$$8.26. \quad (x + y) \frac{dy}{dx} - 2y = 0.$$

$$8.27. \quad (x + y) \frac{dy}{dx} + x - y = 0.$$

$$8.28. \quad x \frac{dy}{dx} = y + \sqrt{x^2 + y^2}.$$

$$8.29. \quad x \frac{dy}{dx} = y + \sqrt{y^2 - x^2}.$$

$$8.30. \quad 2\sqrt{xy} - y + x \frac{dy}{dx} = 0.$$

$$8.31. \quad y + (2\sqrt{xy} - x) \frac{dy}{dx} = 0.$$

$$8.32. \quad x - \sqrt{xy} - y + \sqrt{xy} \frac{dy}{dx} = 0.$$

$$8.33. \quad \frac{dy}{dx} = \frac{2y^2 - xy}{x^2 - xy + y^2}.$$

$$8.34. \quad \frac{dy}{dx} = \frac{y}{x} + \operatorname{tg} \frac{y}{x}.$$

$$8.35. \quad x \frac{dy}{dx} - y = x \operatorname{tg} \frac{y}{x}.$$

$$8.36. \quad x - y \cos \frac{y}{x} + x \cos \frac{y}{x} \cdot \frac{dx}{dx} = 0.$$

$$8.37. \quad x \cos \frac{y}{x} (y dx + x dy) = y \sin \frac{y}{x} (x dy - y dx).$$

$$8.38. \quad x \frac{dy}{dx} = y \ln \frac{y}{x}.$$

$$8.39. \quad x \frac{dy}{dx} = y(1 + \ln y - \ln x).$$

$$8.40. \quad (x^2 - y^2) \frac{dy}{dx} - 2xy = 0.$$

$$8.41. \quad (3x^2 - y^2) \frac{dy}{dx} - 2xy = 0.$$

$$8.42. \quad (x^2 - xy) \frac{dy}{dx} + y^2 = 0.$$

$$8.43. \quad (x^2 + 2xy) \frac{dy}{dx} = y^2.$$