

$$1. \quad y = x \arcsin \frac{1}{x} + \ln \left| x + \sqrt{x^2 - 1} \right|, \\ x > 0.$$

$$2. \quad y = \ln(\cos^2 x + \sqrt{1 + \cos^4 x}).$$

$$3. \quad y = \arccos \frac{1}{\sqrt{1 + 2x^2}}, \quad x > 0.$$

$$4. \quad y = \sqrt{1 + 2x} - \ln(x + \sqrt{1 + 2x}).$$

$$5. \quad y = \ln(x + \sqrt{1 + x^2}) - \sqrt{1 + x^2} \operatorname{arctg} x.$$

$$6. \quad y = \frac{\ln|x|}{1 + x^2} - \frac{1}{2} \ln \frac{x^2}{1 + x^2}.$$

$$7. \quad y = \ln(e^x + \sqrt{e^{2x} - 1}) + \operatorname{arcsine}^{-x}.$$

$$8. \quad y = x\sqrt{4 - x^2} + 4 \arcsin \frac{x}{2}.$$

$$9. \quad y = \ln \operatorname{tg} \frac{x}{2} - \frac{x}{\sin x}.$$

$$10. \quad y = 2x + \ln|\sin x + 2\cos x|.$$

$$11. \quad y = \sqrt{\operatorname{ctg} x} - \sqrt{\operatorname{tg}^3 \frac{x}{3}}.$$

$$12. \quad y = 2x + \ln|\sin x + 2\cos x|.$$

$$13. \quad y = \operatorname{arcth} \frac{x^2 - 1}{x}.$$

$$14. \quad y = \ln|x^2 - 1| - \frac{1}{x^2 - 1}.$$

$$15. \quad y = \operatorname{arctg}\left(\operatorname{tg} \frac{x}{2} + 1\right).$$

$$16. \quad y = \ln|2x + 2\sqrt{x^2 + x} + 1|.$$

$$17. \quad y = e^x(\cos 2x + 2\sin 2x).$$

$$18. \quad y = x(\sin \ln x - \cos \ln x).$$

$$19. \quad y = \sqrt{3 + x^2} - x \ln|x + \sqrt{3 + x^2}|.$$

$$20. \quad y = \arccos \frac{1}{\sqrt{1 + 2x^2}}, \quad x > 0.$$

$$21. \quad y = \arccos \frac{x^2 - 1}{x^2 \sqrt{2}}.$$

$$22. \quad y = \operatorname{tg}\left(2 \arccos \sqrt{1 - x^2}\right), \quad x > 0.$$

$$23. \quad y = \sqrt{x} - (1 + x) \operatorname{arctg} \sqrt{x}$$

$$24. \quad y = \cos x \ln \operatorname{tg} x - \ln \operatorname{tg} \frac{x}{2}.$$

$$25. \quad y = x^2 \operatorname{arctg} \sqrt{x^2 - 1} - \sqrt{x^2 - 1}$$

$$26. \quad y = \frac{2x + 5}{13(3x + 1)}.$$

$$27. \quad y = \log_3(x + 5).$$

$$28. \quad y = 3^{2x+5}.$$

$$29. \quad y = \frac{x}{x + 1}.$$

$$30. \quad y = \frac{2x + 5}{13(3x + 1)}.$$