1. (Ederiv32.tex)
$$\ln x^2 + \ln x + \frac{1}{x}$$

2. (Ederiv23.tex) $h'_y(x) = (\ln y)y^x$

3. (Ederiv34.tex)
$$\frac{2x}{(1+x^3)^{\frac{5}{3}}}$$

4. (Ederiv48.tex)
$$-\frac{2}{1+x^2}$$

5. (Ederiv44.tex) $\cotan x$

6. (Ederiv47.tex) Les fonctions sont dérivables dans $]0,1[$. Les dérivées sont
$$\frac{1}{2\sqrt{x(1-x)}} \text{ et } 0$$

7. (Ederiv21.tex)
$$\frac{f(x)f''(x)}{f'(x)^2}$$

8. (Eexo12.tex)
$$1 - \text{th}^2 x$$

9. (Eexo107.tex)
$$\frac{x-1}{\ln x}$$

10. (Ederiv45.tex)
$$]1, +\infty[\quad \frac{1 + \ln(\ln x)}{x}$$

11. (Ederiv11.tex)
$$\frac{1}{2\sqrt{k+1}} \le \sqrt{k+1} - \sqrt{k} \le \frac{1}{2\sqrt{k}}$$

12. (Ederiv29.tex)
$$-\frac{1}{\cos x}$$

13. (Ederiv18.tex)
$$-\frac{10x^2 + 10x + 1}{(x^2 + x + 1)^4}$$

14. (Eexo66.tex)
$$\frac{(-1)^{n-1}(n-1)!}{(1+x)^n}$$

15. (Ederiv4.tex)
$$-2\sin t$$

16. (Ederiv6.tex)
$$\frac{-2}{x^2 - 1}$$

17. (Ederiv15.tex)
$$\frac{1}{\cos x - 1}$$

18. (Ederiv39.tex)
$$\frac{2}{(\cos\theta - \sin\theta)^2} = 2\frac{1 + \tan^2\theta}{(1 - \tan\theta)^2}$$

19. (Ederiv24.tex) la fonction nulle

20. (Ederiv16.tex)
$$\frac{1}{1 + \cos x}$$

21. (Ederiv7.tex)
$$\frac{2}{(\cos t - \sin t)^2}$$

22. (Eexo67.tex)
$$(x^2 + (2n+1)x + 1 + n^2)e^x$$

23. (Eexo180.tex) $-f(-x)$

24. (Ederiv9.tex)
$$\frac{1}{\sqrt{x^2 + 1}}$$

25. (Ederiv51.tex)
$$\frac{2}{1 + x^2}$$

26. (Ederiv46.tex) $f'_k = kf_{k-1} + (k+1)f_{k+1}$

27. (Ederiv41.tex) $-\tan x$

28. (Ederiv3.tex)
$$2(\ln x + 1)x^{2x}$$

29. (Ederiv12.tex) oui évidemment !!

30. (Ederiv19.tex)
$$\frac{1}{f'' \circ \varphi}$$

31. (Ederiv37.tex)
$$\frac{1}{1 - \sin x}$$

32. (Ederiv14.tex) Faux.

33. (Ederiv49.tex)
$$\frac{1}{1 + x^2}$$

34. (Ederiv25.tex)
$$\frac{2}{1 + x^2}$$

35. (Ederiv38.tex) $\arctan x$

36. (Ederiv35.tex)
$$\frac{1}{\text{ch}}$$

37. (Eexo126.tex)
$$(\ln 2)\, 2^x + (\ln 3)\, 3^x$$

38. (Eexo182.tex)
$$(-1)^n \frac{n!}{x^{n+1}}$$

39. (Ederiv43.tex) $\frac{1}{\sin x}$

40. (Ederiv5.tex)
$$\arctan x$$

41. (Ederiv8.tex)
$$(1 - \ln x)x^{\frac{1}{x} - 2}$$

42. (Ederiv2.tex)
$$(2\ln x + 1)x^{1 + x^2}$$

43. (Ederiv30.tex)
$$\frac{1}{(2x^2 + 1)^2\sqrt{1 + x^2}}$$

44. (Ederiv28.tex)
$$\frac{1}{\cos x}$$

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45. (Ederiv1.tex)
$$2x(\ln 2)2^{(x^2)}$$

46. (Eexo119.tex)
$$\left(t^3 + 3nt^2 + 3n(n-1)t + n(n-1)(n-2)\right)e^t$$

47. (Eexo179.tex)
$$\frac{-2x^2 + 1}{(4x^2 + 2x + 1)(x^2 + x + 1)}$$

48. (Ederiv22.tex) $k'_x(y) = xy^{x-1}$

49. (Ederiv13.tex) vrai

50. (Ederiv50.tex)
$$f(x) + \int_0^x e^{x-t} f(t)\, dt$$

51. (Ederiv33.tex)
$$\frac{1}{x \, \ln(x) \, \ln(\ln(x))}$$

52. (Eexo77.tex)
$$\sum_{k=0}^{n} C_n^k f^{(k)} g^{(n-k)}$$

53. (Ederiv42.tex) $\frac{1}{\cos x}$

54. (Ederiv20.tex)
$$\varphi$$

55. (Ederiv31.tex)
$$2x \ln x + x$$

56. (Ederiv40.tex) $(n^2 + 3n + 4)e$

57. (Ederiv17.tex)
$$ab\frac{1 + \tan^2(bx)}{1 + a^2 \tan^2(bx)}$$

58. (Ederiv26.tex)
$$\frac{2}{1 + x^2}$$

59. (Eexo181.tex) $(\ln x + 1)x^x$

60. (Ederiv36.tex)
$$\frac{1}{\operatorname{ch} x}$$

61. (Ederiv10.tex)
$$\frac{1}{\sqrt{x^2 - 1}}$$

62. (Ederiv27.tex)
$$-\frac{2}{1 + x^2}$$