

Date le seguenti funzioni, determinare la legge della derivata prima.

1. $f(x) = \log(x^2 + 5x + 7) + e^{3x+1}\sqrt{x^2 + 4}$
2. $f(x) = \frac{3x^2 + 4x + 2}{3x^3 + 5} + e^{5x+1}$
3. $f(x) = e^{5x^3+3\sqrt{x+1}}$
4. $f(x) = e^{5x+7\sqrt{x}} \log(3x^2 + 1)$
5. $f(x) = (3x^2 + 5x)\sqrt{2x + 1} + \log(5x^3 + 4x^2\sqrt{x})$
6. $f(x) = (5x^3 + 6x^2) \log(x^2 + 1) + \frac{3x^2 + 4x\sqrt{x + 1}}{2x^3}$
7. $f(x) = (3x^2 + 4x)e^{x^2+5x} + \sqrt{3x + 4}$
8. $f(x) = (2x + 1)\sqrt{4x - 3}$
9. $f(x) = (5x^2 - 3x) \log(x^2 + 1) + e^{\sqrt{x-3}}$
10. $f(x) = 7x + 1 + \frac{4x^2 - 3x}{2x - 1}$
11. $f(x) = (3x + \sqrt{x + 2}) + e^{5x+4}$
12. $f(x) = (2x - 3) \log(7x + 1)$
13. $f(x) = \log(5x^2 + 3x) + e^{7x-1}\sqrt{3x + 1}$
14. $f(x) = (2x - 3)e^{5x^2+4x-1}$
15. $f(x) = (7x - 1)\sqrt{5x^3 + 4x - 3}$
16. $f(x) = (8x^2 - 7x)e^{3x-5} + \log(4x^2 + 1)$
17. $f(x) = \frac{\log(5x^2 + 4)}{3x^5 + 6x}$
18. $f(x) = e^{5x-7} \log(6x^2 + 5x)$
19. $f(x) = (3x + 1) \log(x^2 + 1) + \frac{5x^3 - 6x^2}{2x^4 + 1}$

20. $f(x) = \frac{3x^6 - 7x^4 + 5}{8x + 1} + \sqrt{4x^2 + 5}$
21. $f(x) = \frac{6x^5 + 5x^3}{4x + 3} + e^{7x+5}$
22. $f(x) = \frac{7x^2 + 5x}{2x^3 + 5} + (3x^5 - 7x) \log(4x^2 + 2)$
23. $f(x) = (6x^5 + 4x^3)e^{5x^4+3x}$
24. $f(x) = e^{7x^2\sqrt{x}+3x^2} + \frac{\sqrt{3x^4 + 5}}{2x + 1}$
25. $f(x) = e^{5x^3\sqrt{4x}+2x} + (3x + 1) \log(5x^2 + 1) + \frac{5x^2 + 1}{3x - 1}$
26. $f(x) = (3x - 5) \log(7x^2 + 6x + 3)$
27. $f(x) = \log(5x^3\sqrt{x} + 6x^2e^{4x})$
28. $f(x) = 3x^5e^{7x+5} + \frac{6x - 3}{5x + 4}$
29. $f(x) = (x + 4) \log(3x^3\sqrt{4x + 1})$
30. $f(x) = \frac{e^{5x+\sqrt{x}}}{3x + 1} + e^{6x^2-3x} \log(5x^2 + 6)$