

Analisi Matematica 1 Esercitazione 26-11

November 23, 2020

Esercizio 1: Calcolare le derivate delle seguenti funzioni:

1.

$$f(x) = \sqrt[n]{x} \quad (1)$$

2.

$$f(x) = \arctan \sin^2 x \quad (2)$$

3.

$$f(x) = x\sqrt{1-x^2} \quad (3)$$

4.

$$f(x) = x\sqrt{1+x^2} \quad (4)$$

5.

$$f(x) = \log\left(\frac{\sqrt{x-1}}{2x}\right) \quad (5)$$

6.

$$f(x) = \sqrt[6]{(2x-1)(x+3)^2} \quad (6)$$

7.

$$f(x) = \frac{\arcsin(e^{-x})}{x^2+2} \quad (7)$$

8.

$$f(x) = \frac{x^3}{\log^2|x|-1} \quad (8)$$

9.

$$f(x) = \log|\cos x| \quad (9)$$

10.

$$f(x) = \log|\log|x|| \quad (10)$$

11.

$$f(x) = x - 2\log|x+1| \quad (11)$$

12.

$$f(x) = e^{\sqrt{x}} \quad (12)$$

13.

$$f(x) = x \tan x + \log(\cos x) - \frac{x^2}{2} \quad (13)$$

14.

$$f(x) = 5^{x^3+x+1} \quad (14)$$

15.

$$f(x) = x^n e^{\sin x} \quad (15)$$