

**Determinare il campo di esistenza delle seguenti funzioni**

1.  $f(x) = \sqrt{-x^2 + 7x - 12}$

2.  $f(x) = \frac{x^3 + 5x^2}{3x^2 - 2}$

3.  $f(x) = \sqrt{\frac{x^2 - 2x + 2}{x^2 - 4}}$

4.  $f(x) = \sqrt{e^x - 4}$

5.  $f(x) = \sqrt{\frac{e^{2x} - 3}{x + 1}}$

6.  $f(x) = \sqrt{3x^2 - 9} + \frac{1}{x^2 - 1}$

7.  $f(x) = \sqrt{x + 5} - \frac{1}{x}$

8.  $f(x) = \frac{x^2 + 3x - 4}{x^2 - 6x + 9}$

9.  $f(x) = \frac{2x^3 + 4x}{e^x + 4}$

10.  $f(x) = \frac{3x^2 + 5x}{e^x - 2}$

11.  $f(x) = \frac{e^{x+1} - 4}{x - 3}$

12.  $f(x) = \frac{e^{\sqrt{x+1}} - 5}{x + 2}$

13.  $f(x) = \sqrt{|x - 3| + 4}$

14.  $f(x) = \log(3x^2 + 5x)$

15.  $f(x) = \log(x^3 + 4x^2 + 4x)$

16.  $f(x) = \log \frac{3x^3 + 2x^2}{x + 1}$

17.  $f(x) = \log(7x + 3)$

18.  $f(x) = \sqrt{3 - \log x}$

19.  $f(x) = \frac{4x - 3}{2 - \log(4x)}$

20.  $f(x) = \frac{7x + 5 \log(3x)}{3x - 2}$
21.  $f(x) = \sqrt{4 - \log(x + 1)}$
22.  $f(x) = \log(3x + 1)$
23.  $f(x) = \frac{\log(2x - 3)}{7x + 1}$
24.  $f(x) = 3x + 1 - \frac{7}{\log(3x)}$
25.  $f(x) = e^{3x+5} - \log x^2$
26.  $f(x) = \frac{5x^3 + 2}{7x - 3} + \sqrt{3x + 5}$
27.  $f(x) = \sqrt{e^{x+4} + 3x^2}$
28.  $f(x) = \log(x^2 + 2)$
29.  $f(x) = \log(x^2 + 4x + 4)$
30.  $f(x) = \sqrt{7x^2 + 3x}$
31.  $f(x) = \log(|3x + 1| + 3)$
32.  $f(x) = e^{|4x+3|} + \log x$
33.  $f(x) = \frac{5x + \log(3x)}{|4x - 1|}$
34.  $f(x) = \sqrt{|5x + 3| - 5}$
35.  $f(x) = \log(|1 - x| + 3)$
36.  $f(x) = \frac{\log(3x + 2)}{\log(4x - 3)}$
37.  $f(x) = \log(5x + 3) + \sqrt{e^{3x-4}}$
38.  $f(x) = 5x^2 + 4x + \sqrt{3x^3 + 4x^2 - 6x - 8}$
39.  $f(x) = \log(4x^3 + 8x^2 + 2x)$
40.  $f(x) = \log \frac{3x + 4}{-5x + 2}$
41.  $f(x) = \log(3x + 4) - \log(-5x + 2)$
42.  $f(x) = \sqrt{e^{5x+1} - 3}$

43.  $f(x) = \frac{3x + \sqrt{7x - 3}}{5x^3 - 4x}$
44.  $f(x) = \log(4x^2 + 2) + \frac{\sqrt{3x^2 - 7x + 2}}{3x - 1}$
45.  $f(x) = \log(5x^2 - 6x + 1) + \frac{\sqrt{x^2 + 4x}}{x + 4}$
46.  $f(x) = \frac{\log(2x^2 - 3)}{3x^2 + 4}$
47.  $f(x) = \log(3x^2 + 6x) + \sqrt{5x + 1}$
48.  $f(x) = \log(3x + 5) + \sqrt{e^{3x-4} - 1}$
49.  $f(x) = \log(-2x + 4) + \sqrt{e^{5x-1} + 2}$
50.  $f(x) = \log(-3x + 6) + \sqrt{e^{3x+5} - 6}$
51.  $f(x) = \log(3x^2 + 4x) + \sqrt{e^{3x^2+2x} - 3}$
52.  $f(x) = \log(6x + 5) + \sqrt{e^{3x-4} + 6}$
53.  $f(x) = \log(\sqrt{3x + 1}) + \log(e^{4x-6} - 8)$
54.  $f(x) = \log(3x^2 + 4x) + \log(e^{7x-5} - 3)$
55.  $f(x) = \frac{\log(3x^2 + 5 + 6x + 3)}{e^{5x+1} - 3} + \sqrt{5x^2 + 6x + 1}$
56.  $f(x) = \sqrt{3x + \log(2x + 1)}$
57.  $f(x) = \log(3x - \log(7x + 1))$
58.  $f(x) = \frac{1}{4x - e^{3x+1}}$
59.  $f(x) = \sqrt{5x + e^{4x-1}}$
60.  $f(x) = \log(5x - e^{-3x+1})$
61.  $f(x) = \frac{1}{\log(3x - 1) - 5x}$
62.  $f(x) = \sqrt{7x - \log(4 - x)}$
63.  $f(x) = \log(3x + e^{5x+7})$
64.  $f(x) = \frac{1}{3e^{4x+1} + 7x}$

$$65. f(x) = \sqrt{5e^{3x+4} + 6x}$$

$$66. f(x) = \frac{1}{2e^{4x+3} + 5x}$$

$$67. f(x) = \log(3x + 7e^{2x+1})$$

$$68. f(x) = \sqrt{3e^{4x+1} + 5x}$$

$$69. f(x) = \log(2x + e^{5x-1})$$

$$70. f(x) = \frac{1}{5x - \log(7x - 1)}$$