

Rozložte na parciální zlomky uvedené racionální lomené funkce

1. 
$$\frac{1}{(x-1)(x+3)}$$

2. 
$$\frac{1}{x^2+x-2}$$

3. 
$$\frac{x}{(x+2)(x+3)}$$

4. 
$$\frac{2x+3}{(x-2)(x+5)}$$

5. 
$$\frac{x}{2x^2-3x-2}$$

6. 
$$\frac{x}{x^3-3x+2}$$

7. 
$$\frac{x^2-5x+9}{x^2-5x+6}$$

8. 
$$\frac{x^{10}}{x^2+x-2}$$

9. 
$$\frac{3x^3-5x+8}{x^2-4}$$

10. 
$$\frac{2x+11}{x^2+6x+13}$$

11. 
$$\frac{x^2}{x^2-6x+10}$$

12. 
$$\frac{x^4}{x^4+5x^2+4}$$

13.

$$\frac{2x^2 + 41x - 91}{(x - 1)(x + 3)(x - 4)}$$

14.

$$\frac{5x - 3}{(x - 2)(3x^2 + 2x - 1)}$$

15.

$$\frac{1}{6x^3 - 7x^2 - 3x}$$

16.

$$\frac{5x - 14}{x^3 - x^2 - 4x + 4}$$

17.

$$\frac{x^5 + x^4 - 8}{x^3 - 4x}$$

18.

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

19.

$$\frac{1}{(x + 1)(x + 2)^2(x + 3)^3}$$

20.

$$\frac{1}{x^5 + x^4 - 2x^3 - 2x^2 + x + 1}$$

21.

$$\frac{1}{x^4 - 13x^2 + 36}$$

22.

$$\frac{x^2 + 5x + 4}{x^4 + 5x^2 + 4}$$

23.

$$\frac{x^6 - 2x^4 + 3x^3 - 9x^2 + 4}{x^5 - 5x^3 + 4x}$$

24.

$$\frac{1}{(x + 1)(x^2 + 1)}$$

25.

$$\frac{1}{(x^2 - 2)(x^2 + 3)}$$

26.

$$\frac{1}{(x^2 - 4x + 4)(x^2 - 4x + 5)}$$

27.

$$\frac{x}{(x - 1)^2(x^2 + 2x + 2)}$$

28.

$$\frac{1}{x(x + 1)(x^2 + x + 1)}$$

29.

$$\frac{1}{x^3 + 1}$$

30.

$$\frac{x}{x^3 - 1}$$

31.

$$\frac{1}{x^6 - 1}$$

32.

$$\frac{1}{x^4 - 1}$$

33.

$$\frac{1}{(x^2 + 1)(x^2 + 2)}$$

34.

$$\frac{1}{x^4 + 1}$$

35.

$$\frac{1}{x^8 - 1}$$

36.

$$\frac{1}{x^4 + x^2 + 1}$$

37.

$$\frac{1}{x^6 + 1}$$

38.

$$\frac{1}{x^8 + 1}$$

39.

$$\frac{1}{(x + 1)(x^2 + 1)(x^3 + 1)}$$

40.

$$\frac{1}{x^5 - x^4 + x^3 - x^2 + x - 1}$$