

43.

Rozložte na parciální zlomky:

$$\text{a) } \frac{7x^2 + 7x - 176}{x^3 - 9x^2 + 6x + 56} ; \quad \text{b) } \frac{-22x^2 - 24x + 12}{x^4 - 10x^2 + 9} ; \quad \text{c) } \frac{4x - 4}{x^2(x-2)(x+1)^2} ;$$

$$\text{d) } \frac{2x}{(x^2 + 1)(x^2 + 3)} ; \quad \text{e) } \frac{2}{(x^2 + 1)(x-2)^2} ; \quad \text{f) } \frac{2x}{x^3 + 1} ; \quad \text{g) } \frac{1}{x^6 - 1} .$$

$$\text{a) } -\frac{3}{x+2} + \frac{2}{x-4} + \frac{8}{x-7} ; \quad \text{b) } -\frac{43}{6(x-3)} + \frac{57}{24(x+3)} + \frac{7}{8(x+1)} + \frac{17}{8(x-1)}$$

$$\text{c) } -\frac{5}{x} + \frac{2}{x^2} + \frac{1}{9(x-2)} + \frac{44}{9(x+1)} + \frac{8}{3(x+1)^2} ; \quad \text{d) } \frac{x}{x^2+1} - \frac{x}{x^2+3} ;$$

$$\text{e) } \frac{x}{x^2+1} - \frac{1}{x-1} + \frac{1}{(x-1)^2} ; \quad \text{f) } \frac{2}{3} \left( -\frac{1}{x+1} + \frac{x+1}{x^2-x+1} \right) ;$$

$$\text{g) } \frac{1}{6} \left( \frac{1}{x-1} - \frac{x+2}{x^2+x+1} - \frac{1}{x+1} + \frac{x-2}{x^2-x+1} \right) .$$