

ESERCIZI IN PIÙ

LE EQUAZIONI NUMERICHE FRATTE

Risolvi le seguenti equazioni.

$$1 \quad \frac{3}{9-x^2} + \frac{6x}{2x^3+54} - \frac{8}{4x^2-12x+36} = \frac{2}{3x-x^2} \quad [6]$$

$$2 \quad \left(\frac{1}{x^2+10x+9} - \frac{1}{9} \right) : \frac{x^2-100}{x^2-81} + \frac{\frac{1}{9}x-2}{x+1} = 0 \quad \left[\frac{180}{19} \right]$$

$$3 \quad \left[\frac{3+4x^2}{8x^3-1-12x^2+6x} - \frac{2(x+1)}{4x^2+1-4x} \right] \cdot (4x-2) = \frac{3}{2x-1} \quad \left[\frac{13}{10} \right]$$

$$4 \quad \frac{\frac{x^3-4x}{2x^2+7x+3}}{\frac{x^2+2x}{x^3+27}} = x^2-3x+9 \quad [\text{impossibile}]$$

$$5 \quad \frac{4}{3x^2-7x+2} + \frac{2x}{9x-3} - 1 = \frac{7x \cdot (9)^{-1}}{2-x} \quad \left[-\frac{9}{22} \right]$$

$$6 \quad \frac{4x}{4x^2-9} - \left(\frac{1}{2x^2+5x+3} + \frac{1}{2x^2-x-3} \right) : \left(\frac{4}{3}x \right) = \frac{1}{x+1} \quad [\text{impossibile}]$$

$$7 \quad \left(\frac{x+2}{10-3x-x^2} + \frac{x+5}{x^2-4} \right) : \frac{x+5}{x^2-2x} = \frac{2x^2+7x}{x^3+15x^2+75x+125} \quad \left[-\frac{7}{2}; -\frac{13}{2} \right]$$

$$8 \quad \left(2 - \frac{5}{x} \right)^{-1} - 2(2x-5)^{-1} = \frac{5}{2x^2-x-10} \quad [\pm 3]$$

$$9 \quad \frac{1}{x} : \left[\left(2 + \frac{3}{x} - \frac{2}{x^2} \right) \cdot \frac{1}{2x-1} \right] - \frac{1-x^2}{4-x^2} = \frac{3(1-2x)}{3x^2-7x+2} \quad [\text{impossibile}]$$

$$10 \quad \frac{1-x^2}{x^3-8} + \frac{4}{2x-4} = \frac{x+3}{x^2+2x+4} \quad [-5]$$

$$11 \quad \frac{x+2}{x+3} - \frac{x^2}{x^2-x-6} = \frac{1-2x}{x^2-9} \quad \left[-\frac{14}{5} \right]$$

$$12 \quad \frac{3x+2}{x^2-2x-3} - \frac{2x-1}{x^2-1} = \frac{x+3}{x^2-4x+3} \quad [4]$$

$$13 \quad \frac{x-1}{x^2-4x+4} : \frac{x^2-1}{x^2-5x+6} + \frac{3-x}{x^2-x-2} = 0 \quad [x \neq \pm 1 \wedge x \neq 2 \wedge x \neq 3]$$

$$14 \quad \left(\frac{x-3}{x^2-6x+5} - \frac{x-7}{x^2-10x+25} \right) : \frac{x+3}{x-1} = 0 \quad [\text{impossibile}]$$