

Equazioni

$$1 \quad \frac{1}{2x\sqrt{5}} - \frac{1+x}{2x(\sqrt{5}-1)} + \frac{1}{\sqrt{5}-1} = 0.$$

$$2 \quad \frac{x^2 + \sqrt{3} + 1}{x^2 - 2\sqrt{2}x + 2} + \frac{2\sqrt{2}}{\sqrt{3}x - \sqrt{6}} = 1.$$

$$3 \quad \frac{\sqrt{2}}{\sqrt{3}x - \sqrt{6}} - \frac{\sqrt{2}x + 2}{\sqrt{3}x^2 + \sqrt{6}x + 2\sqrt{3}} = \frac{2x + 4\sqrt{2}}{x^3 - 2\sqrt{2}}.$$

$$4 \quad \frac{x - 2\sqrt{5}}{\sqrt{5}} + \frac{\sqrt{2}x + \sqrt{5}}{\sqrt{10} + \sqrt{5}} + \sqrt{5}x = 5;$$

$$5 \quad \frac{x}{\sqrt{6}-1} - \frac{1}{\sqrt{6}+1} = \frac{x}{\sqrt{6}(\sqrt{6}-1)} + \frac{1}{\sqrt{6}(\sqrt{6}+1)}.$$

$$6 \quad \frac{1}{\sqrt{3}-1} = \frac{x+2}{4\sqrt{3}-4} - \frac{x}{4\sqrt{3}};$$

$$7 \quad \frac{x + 3\sqrt{5}}{\sqrt{7} + 3\sqrt{5}} - \frac{3\sqrt{5} - x}{\sqrt{7} - 3\sqrt{5}} = 2;$$

Sistemi

$$8 \quad \begin{cases} \frac{x}{2(\sqrt{3}+1)} + \frac{y}{2(\sqrt{3}-1)} = \sqrt{3} \\ \frac{x}{2+\sqrt{3}} - \frac{y}{\sqrt{3}-2} = 4; \end{cases}$$

$$9 \quad \begin{cases} \frac{x-y}{\sqrt{5}-\sqrt{2}} = \frac{x}{\sqrt{5}} + \sqrt{2} \\ \frac{x-y}{\sqrt{5}+\sqrt{2}} = \sqrt{5} - \frac{y}{\sqrt{2}}; \end{cases}$$

$$10 \quad \begin{cases} \sqrt{2}x - \sqrt{3}y + z = 0 \\ \sqrt{3}x + \sqrt{2}y - z = 5 \\ \sqrt{2}x + \sqrt{3}y + z = 2\sqrt{6}; \end{cases}$$