

VAJE

1. Poenostavi:

$$\left(\frac{5x^{-5}}{2y^{-2}}\right)^{-2} \cdot \left(\frac{y^{-1}}{5x^{-1}}\right)^{-3} \div (10x^2y^{-3}) =$$
$$\frac{\sqrt[4]{(x^{14}y^{-21})^5} \cdot \left(\sqrt[3]{x^2 \cdot \sqrt{y^{-2}x}}\right)^2}{\sqrt{x \cdot \sqrt[3]{x^{-5}y^8}}} =$$

$$\left(\frac{3x^{-5}}{5y^{-2}}\right)^{-3} \cdot \left(\frac{9x^{-1}}{5y^{-1}}\right)^{-3} \cdot \left(\frac{x^{-6}y}{15}\right) =$$
$$\sqrt[3]{\frac{x^4y}{\sqrt{x^{-4}y^5}}} \cdot \left(x^{-2}\sqrt[4]{yx^{-6}}\right)^2 =$$
$$\frac{a^{2x+1} + a^{2x} - 16a^{2x-1} - 16a^{2x-2}}{a^{2x-1} - 3a^{2x-2} - 4a^{2x-3}}$$

2. Izračunaj :

$$(3 - \sqrt{5})\sqrt{(7 + 3\sqrt{5})/2} - \sqrt{27^{2/3} - 0.25^{-3/2}} + \sqrt{8/3}\sqrt[3]{(3\sqrt{3})/(2\sqrt{2})}$$

$$\sqrt{\left(6\frac{1}{4}\right)^{-1}} \cdot \sqrt[3]{0,008} + \sqrt{27^{\frac{2}{3}} + 0.125^{-\frac{4}{3}}}$$

3. Racionaliziraj :

$$\frac{2\sqrt{3} - \sqrt{2}}{\sqrt{2} - \sqrt{3}} =$$
$$\frac{20}{\sqrt{2} \cdot \sqrt[3]{3}} =$$

$$\frac{\sqrt{3\sqrt{2} + \sqrt{3}} + \sqrt{3\sqrt{2} - \sqrt{3}}}{\sqrt{3\sqrt{2} + \sqrt{3}} - \sqrt{3\sqrt{2} - \sqrt{3}}}$$

