

Poenostavite izraz $\frac{\sqrt[3]{2a^2b^{-2}} \cdot \sqrt[8]{a^4b^{12}}}{\sqrt{a^3\sqrt[3]{2^{-1}a^{-5}b^8}}}$

$$\begin{aligned}
 &= \frac{2^{\frac{1}{3}} a^{\frac{2}{3}} b^{-\frac{2}{3}} \cdot a^{\frac{1}{2}} b^{\frac{3}{2}}}{\sqrt{a \cdot 2^{-\frac{1}{3}} a^{-\frac{5}{3}} b^{\frac{8}{3}}}} \\
 &= \frac{2^{\frac{1}{3}} a^{\frac{7}{6}} b^{\frac{1}{6}}}{a^{\frac{1}{2}} \cdot 2^{-\frac{1}{3} + \frac{1}{2}} a^{-\frac{5}{3} + \frac{1}{2}} b^{\frac{8}{3} + \frac{1}{2}}} \\
 &= \frac{2^{\frac{2}{6}} a^{\frac{7}{6}}}{2^{\frac{1}{6}} a^{-\frac{4}{6}} b^{\frac{19}{6}}} = \frac{2^{\frac{2}{6}} a^{\frac{11}{6}}}{2^{\frac{1}{6}} b^{\frac{25}{6}}} = \frac{2^{\frac{1}{6}} a^{\frac{11}{6}}}{b^{\frac{25}{6}}}
 \end{aligned}$$

rečitljivo

najboljši način ni z ulomljenimi eksponenti, ampak s skupnim korenskim eksponentom - en del sem napravil, ostalo moraš sam

SAMO ŠTEVEČ:

$$\begin{aligned}
 \sqrt[3]{2a^2b^{-2}} \cdot \sqrt[8]{a^4b^{12}} &= \sqrt[3]{2a^2b^{-2}} \cdot \sqrt[2]{ab^3} = \\
 &\downarrow \text{krajšanije} \\
 \sqrt[6]{2^2 a^4 b^{-4}} \cdot \sqrt[6]{a^3 b^3} &= \sqrt[6]{2^2 a^{4+3} b^{-4+3}} \text{ itd} \\
 &\uparrow \text{RAZŠIRJANJE (glej knjigo)}
 \end{aligned}$$