

Wurzeln Aufgabe 104

$$\begin{aligned} & (15 * \sqrt{50} + 5 * \sqrt{200} - 3 * \sqrt{450}) : \sqrt{10} = \\ & = (15 * \sqrt{25 * 2} + 5 * \sqrt{100 * 2} - 3 * \sqrt{225 * 2}) : \sqrt{10} = \\ & = (15 * 5 * \sqrt{2} + 5 * 10 * \sqrt{2} - 3 * 15 * \sqrt{2}) : \sqrt{10} = \\ & = (75 * \sqrt{2} + 50 * \sqrt{2} - 45 * \sqrt{2}) : \sqrt{10} = \\ & = 80 * \sqrt{2} : \sqrt{10} = 80 * \frac{\sqrt{2}}{\sqrt{10}} = \frac{80}{\sqrt{\frac{10}{2}}} = \frac{80}{\sqrt{5}} = \end{aligned}$$

Nenner rational machen:

$$\frac{80 * \sqrt{5}}{\sqrt{5} * \sqrt{5}} = \frac{80 * \sqrt{5}}{5} = \mathbf{16 * \sqrt{5}}$$