

Die Aufgaben

1. $3x^0y^2 + {}^{2p-2q}\sqrt{(x^2 - 18xy^2 + 81y^4)^{p-q}}$

2. $\frac{16e^{\frac{4}{3}} \left({}^6\sqrt{e^5}\right)^{-1}}{\sqrt[4]{e^{-1}}} - \frac{9e^{\frac{2}{3}} \cdot \sqrt[8]{e^2}}{\left({}^6\sqrt{e}\right)^{-1} \cdot {}^6\sqrt{e}}$

3. $\frac{\sqrt[4]{\sqrt{\sqrt{x^{40}}}}}{\sqrt{x \cdot \sqrt{x^3} \cdot \sqrt[4]{x^{52}}}}$

4. $\sqrt[8]{54^{-1}x^{-7}y^5} : \left(\frac{48x^{-7}}{y^9}\right)^{0.25} \cdot \left(\frac{486y}{x^7}\right)^{\frac{1}{8}}$

5. $(a\sqrt{b^5} - a^4\sqrt{b^6})^2$

6. $\frac{\sqrt[6]{a^{11}} \cdot \sqrt{a} \cdot (a^{-1} \cdot \sqrt[3]{a^6} \cdot \sqrt{a})^{0.5}}{\sqrt{\sqrt[3]{a^9} \cdot \sqrt[4]{a^{19}} \cdot \sqrt{a^{-14}} \cdot \sqrt[4]{\frac{1}{a}}^{-3}}}$