

Obavezan domaći zadatak – korenovanje

Zadaci za ocene 4 i 5

ZADATAK 1. Uprosti izraze:

$$a) \frac{\sqrt{3-2\sqrt{2}}}{\sqrt{9-12\sqrt{2}+8}} - \frac{\sqrt{3+2\sqrt{2}}}{\sqrt{9+12\sqrt{2}+8}},$$

$$b) \frac{\sqrt{\frac{a+2}{a-2}} + \sqrt{\frac{a-2}{a+2}}}{\sqrt{\frac{a+2}{a-2}} - \sqrt{\frac{a-2}{a+2}}}.$$

ZADATAK 2. $A = \sqrt{\left(\frac{1}{b} - \frac{1}{a}\right)\left(\frac{a^2}{b} - \frac{b^2}{a}\right)}$ i $B = \frac{ab(a^2 - b^2)}{3} \sqrt{\left(\frac{1}{a^2} + \frac{1}{b^2} + \frac{1}{ab}\right) \cdot \frac{a^2 b^2 (a+b)^2}{9}}$,

dokaži da je $A = B$.

ZADATAK 3. Uprosti izraz: $\left(\frac{m^{\frac{2}{3}}}{m^{\frac{2}{3}} - 2m^{-\frac{1}{3}}} - \frac{m^{\frac{4}{3}}}{m^{\frac{4}{3}} - m^{\frac{1}{3}}}\right) \cdot (m - 3 + 2m^{-1}) - \left(\frac{2m-3}{m+5}\right)^0$. [R:0]

ZADATAK 4. Racionališi:

$$a) \frac{3}{\sqrt[3]{7} - \sqrt[3]{5}},$$

$$b) \frac{1}{\sqrt[4]{3} + \sqrt[4]{2}},$$

$$c) \frac{\sqrt{6}}{\sqrt{5} + \sqrt{3} - \sqrt{2}}$$

ZADATAK 5. Ako je $M = \sqrt{9 - \sqrt{65}}$ i $N = \sqrt{3 + \sqrt{5}} - \sqrt{7 + \sqrt{13}}$.