

Zadaci koje radimo na časovima

114. (* ON) Pomoću digitrona izračunati: a) $\log_2 5$ b) $\log_3 10$ v) $\log_4 65$
115. (K500) Dokazati identitete: a) $\log_4 5 \cdot \log_5 7 \cdot \log_7 2 = \frac{1}{2}$ b) $\log_3 12 = 1 + \log_3 7 \cdot \log_7 5 \cdot \log_5 4$
116. (K501, 506) Izraziti: a) $\log 3$ preko $\log 21 = a$ i $\log 7 = b$ b) $\log 648$ preko $\log 2 = a$ i $\log 3 = b$
 v) $\log_9 7$ pomoću $\log_{63} 9 = a$ g) $\log_6 9$ preko $\log_6 2 = k$ d) $\log_5 6$ pomoću $\log 2 = a$ i $\log 3 = b$
 đ) $\log_{30} 8$ preko $\log_{30} 3 = a$, $\log_{30} 5 = b$ e) $\log_{12} 5$ preko $\log_5 8 = a$ i $\log_5 9 = b$
117. (K527,528) Rešiti jednačine:
 a) $\log_{\frac{1}{3}}(x-1) = 2$ b) $\log_{x-1} 3 = 2$ v) $\log_{15} \log_4 \log_3 x = 0$
 g) $\log_4(2 \log_3(1 + \log_2(1 + 3 \log_3 x))) = \frac{1}{2}$ d) $\log_2 \log_2 x = \log_2 3 + 2$
118. (K529) Rešiti jednačine:
 a) $2(\log_x \sqrt{5})^2 - 3 \log_x \sqrt{5} + 1 = 0$ b) $\log_{\frac{1}{3}} x - 5\sqrt{\log_{\frac{1}{3}} x} + 4 = 0$
 v) $\log_2^2 x + 2 \log_2 \sqrt{x} - 2 = 0$ g) $\log_x 2 - \log_4 x + \frac{7}{6} = 0$
119. (K530, V1258, K532) Rešiti jednačine: a) $\log_3 x + \log_9 x + \log_{81} x = 7$
 b) $\log_2 x - 2 \log_4 x + \log_{\sqrt{2}}(2x) = \frac{20}{3}$ v) $\log_7 2 + \log_{49} x = \log_{\frac{1}{7}} \sqrt{3}$ g) $\log_4(x+2) \cdot \log_x 2 = 1$
120. (K531, V1290, 1291) Rešiti jednačine: a) $\log_2(3-x) + \log_2(1-x) = 3$ b) $\log_7(2^x - 1) + \log_7(2^x - 7) = 1$
 v) $\log_2 182 - 2 \log_2 \sqrt{5-x} = \log_2(11-x) + 1$ g) $\log \sqrt{x-5} + \log \sqrt{2x-3} + 1 = \log 30$
121. (K539, 532, V1274) Rešiti jednačine: a) $\log_x 3 + \log_3 x = \log_{\sqrt{x}} 3 + \log_3 \sqrt{x} + \frac{1}{2}$ b) $\log_x 4 + \log_x 2 - \log_4 \sqrt{x} = 1$
 v) $\log_{3x} \frac{3}{x} + \log_3^2 x = \log \sqrt{100}$ g) $5 \log_{\frac{x}{9}} x + \log_{\frac{x}{9}} x^3 + 8 \log_{9x^2} x^2 = 2$ d) $\log_2(x+4) = \log_{(4x+16)} 8$

Zadaci za domaći

10. (K500 a,g) Dokazati identitete: a) $\log_4 5 \cdot \log_5 7 \cdot \log_7 2 = \frac{1}{2}$ b) $\log_5 4 \cdot \log_6 5 \cdot \log_7 6 \cdot \log_8 7 = \frac{2}{3}$
11. (K501 a,d, 506 b) đ)) Izraziti: a) $\log 6$ pomoću $\log 2$ i $\log 3$ b) $\log_5 14$ pomoću $\log 7 = a$ i $\log 2 = b$
 v) $\log 125$ pomoću $\log 2 = k$ g) $\log_3 5$ pomoću $\log_6 2 = m$ i $\log_6 5 = n$
12. (K527 v, d, K528 a) g)) Rešiti jednačine: a) $\log_4(x+1) = 1$ b) $\log_3(5 + \log_3(x-1)) = 2$
 v) $\log_4 \log_3 \log_2 x = 0$ g) $\log_2 \log_4 \log_3 x = -1$
13. (V1255) Rešiti jednačine: a) $\log_3^2 x - 3 \log_3 x + 2 = 0$ b) $\log_2 x + \log_x 2 = \frac{5}{2}$
14. (K530 v, V1257 a, K532 v) Rešiti jednačine: a) $\log_{\sqrt{2}} x + \log_2 x + \log_{\sqrt{8}} x = 11$
 b) $\log_2 x + \log_4 x + \log_{16} x = 7$ v) $\log_5 x + \log_{25} x = \log_{\frac{1}{5}} \sqrt{3}$
15. (K531 a, e, i, V1249, V1254) Rešiti jednačine: a) $\log_3(x+1) + \log_3(x+3) = 1$ b) $\log \sqrt{x-8} + \frac{1}{2} \log(2x+1) = 1$
 v) $\log_{1-x} 3 - \log_{1-x} 2 - 0,5 = 0$ g) $\log(5-x) + 2 \log \sqrt{3-x} = 1$ d) $\log_2(x-1) + \log_2(x+2) = 2$
16. (V1291, K532, 539) Rešiti jednačine: a) $1 + \log_2(x+1) = \log_{(x-1)} 2$ b) $\log_{\frac{2}{3}}(4x) + \log_2(\frac{x^2}{8}) = 8$
 v) $3 \log_x 4 + 2 \log_{4x} 4 + 3 \log_{16x} 4 = 0$