

Računarski sistemi - II Kolokvijum

12.12.2016.

1 (4 poena). Za zadate realne brojeve x i y izračunati z zadato na sledeći način:

$$z = \begin{cases} x + \frac{x^2 + y^2}{2 - xy} + y & , |xy| < 1 \\ (xy - 3)(xy - 4) & , \text{inače} \end{cases}$$

2.

<p>a (3 poena)) Nacrtati algoritam koji odgovara kodu sledećeg programa:</p> <pre> 100 DM 2; 102 DR 2.8; x 103 DR 6.5; y 104 MUA 102; 105 MNO 102; 106 AUM 101; 107 MUA 103; 108 MNO 103; 109 SAB 101; 110 AUM 101; 111 ODU 102; 112 ODU 103; 113 NES <u>117</u>; 114 AUM 102; 115 SAB 103; 116 BES <u>118</u>; 117 MUA 101; 118 AUM 100; 119 ZAR ; </pre>	<p>b (4 poena)) Za uneto x i y izračunati z:</p> $z = \begin{cases} x+3 & , x-y < 1 \\ y+3 & , 1 \leq x-y < 3 \\ x+y+6 & , \text{inače} \end{cases}$ <p>Dopuniti kod, a za spajanje delova koda koristiti bezuslovne skokove.</p> <pre> 100 DM 3; 103 DR 3.0, 1.0; 105 DR -2.5, 8.6; x,y 107 MUA 105; 108 SAB 103; 109 AUM 101; 110 MUA 106; 111 SAB 103; 112 AUM 102; 113 MUA 105; 114 ODU 106; 115 NES <u>117</u>; 116 BES <u>118</u>; 117 PZA ; 118 ODU 104; 119 NES <u>200</u>; 120 SAB 104; 121 ODU 103; 122 NES <u>180</u>; ⋮ 140 BES 220; ⋮ 190 BES 220; ⋮ 220 AUM 100; 221 ZAR ; </pre>
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3 (5 poena). Za zadati realan broj x i prirodan broj n izračunati sumu: $S = \sum_{i=1}^n \frac{x^{i-1} + x^i}{(3 \cdot i! + 2)^2}$.