

Sustav zadatka - jednodimenzionalni RMPA (1)

$$\tau_1: c_1=2 \quad T_1=7$$

$$\tau_2: c_2=3 \quad T_2=10$$

$$\tau_3: c_3=2 \quad T_3=12$$

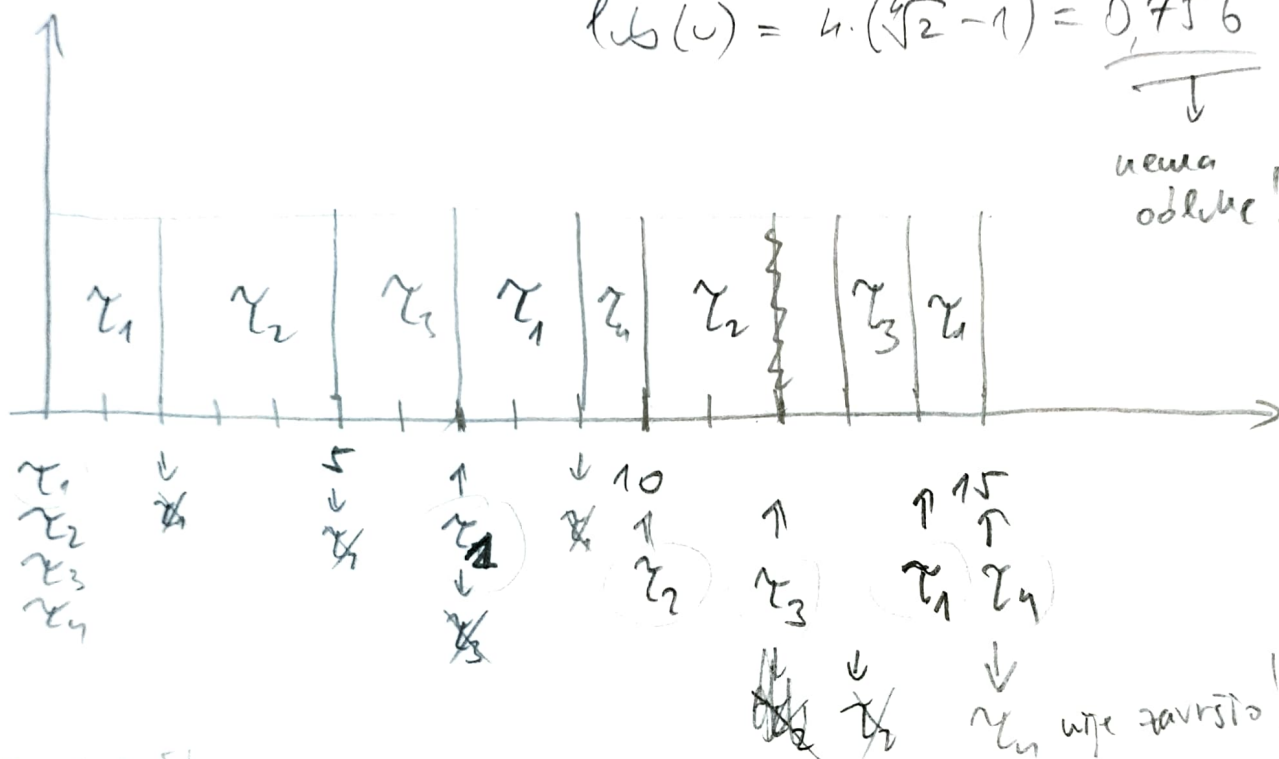
$$\tau_4: c_4=3 \quad T_4=15$$

$$U = \frac{2}{7} + \frac{3}{10} + \frac{2}{12} + \frac{3}{15} = 0,952$$

RMPA?

$$L(u) = 4 \cdot (\sqrt{2} - 1) = 0,756$$

neima odlike!



Opci kriterij

$$\tau_1: D_1 = 7$$

$$c_1 \cdot 1 \leq D_1$$

$$2 \leq 7 \quad \checkmark$$

$$\tau_2: D_2 \in \{7, 10\}$$

$$\tau_2: D_2 = 7$$

$$c_1 \cdot 1 + c_2 \cdot 1 \leq 7$$

$$2 + 3 \cdot 1 \leq 7 \quad \checkmark$$

$$\tau_3: D_3 \in \{7, 10, 12\}$$

$$\tau_3: D_3 = 12$$

$$c_1 \cdot 2 + c_2 \cdot 2 + c_3 \cdot 1 \leq D_3$$

$$4 + 6 + 2 \leq 12 \quad \checkmark$$

$$\tau_4: D_4 \in \{7, 10, 12, 15\}$$

$$\tau_4: D_4 = 15$$

$$c_1 \cdot 3 + c_2 \cdot 2 + c_3 \cdot 2 + c_4 \cdot 1 \leq 15?$$

$$2 \cdot 3 + 3 \cdot 2 + 2 \cdot 2 + 3 = 19 \leq 15 \quad \text{NE}$$

$$\tau_4: D_4 = 12$$

$$c_1 \cdot 2 + c_2 \cdot 2 + c_3 \cdot 1 + c_4 \cdot 1 = 4 + 6 + 2 + 3 = 15 > 12 \quad \text{NE}$$

$$\tau_4: D_4 = 10: c_1 \cdot 2 + c_2 \cdot 1 + c_3 \cdot 1 + c_4 \cdot 1 = 4 + 3 + 2 + 3 = 12 > 10 \quad \text{NE}$$

$$\tau_4: D_4 = 7: c_1 \cdot 1 + c_2 \cdot 1 + c_3 \cdot 1 + c_4 \cdot 1 = 2 + 3 + 2 + 3 = 10 > 7 \quad \text{NE}$$

$$D_1 = 7$$

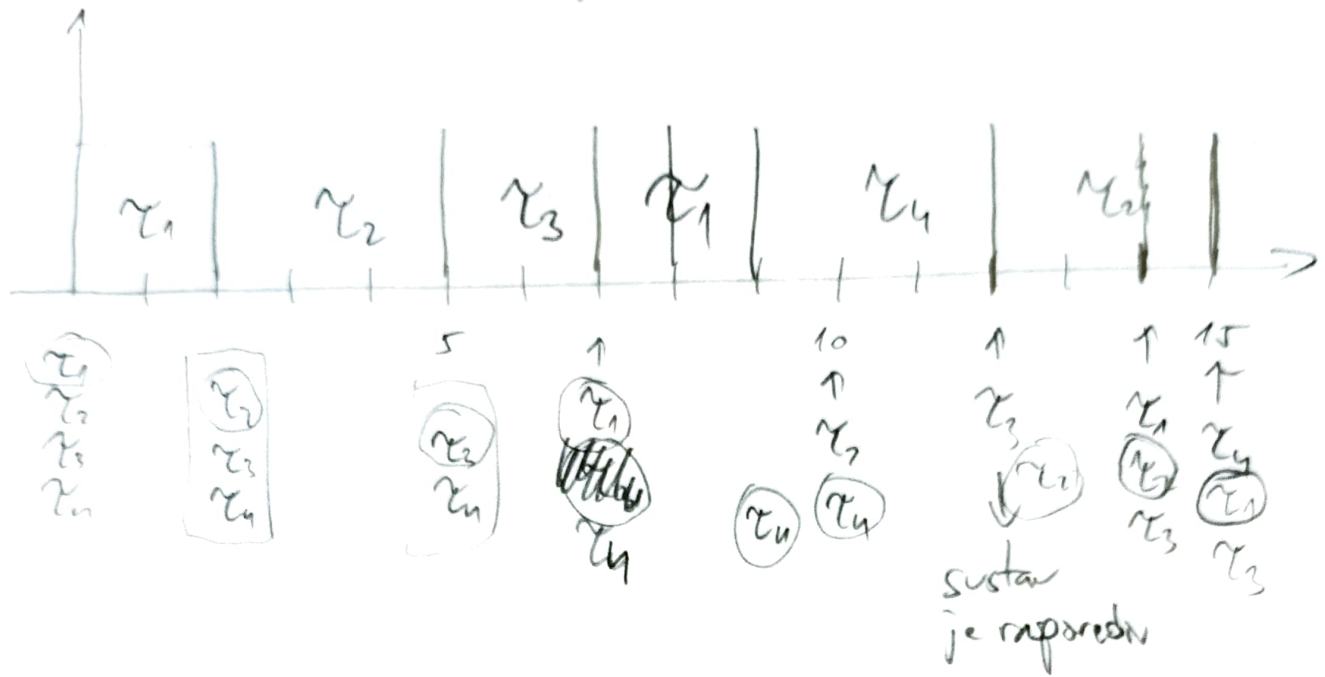
$$D_2 = 10$$

$$D_3 = 10$$

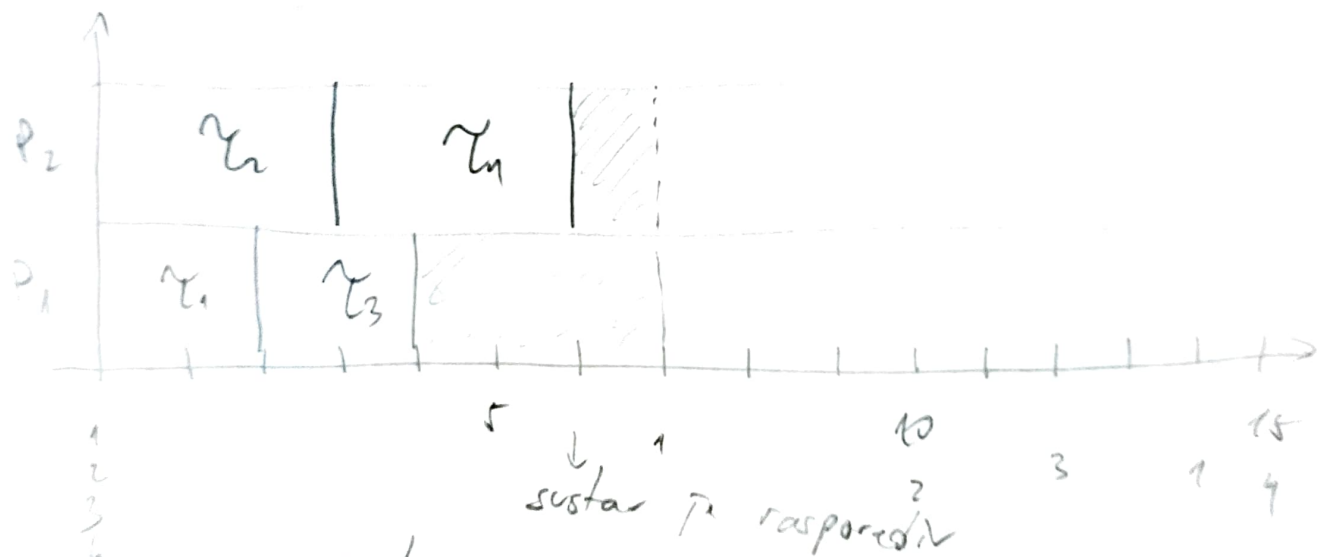
$$D_4 = 7 \quad \text{neima ga jer zad. nije rasp.}$$

neima rasporeda

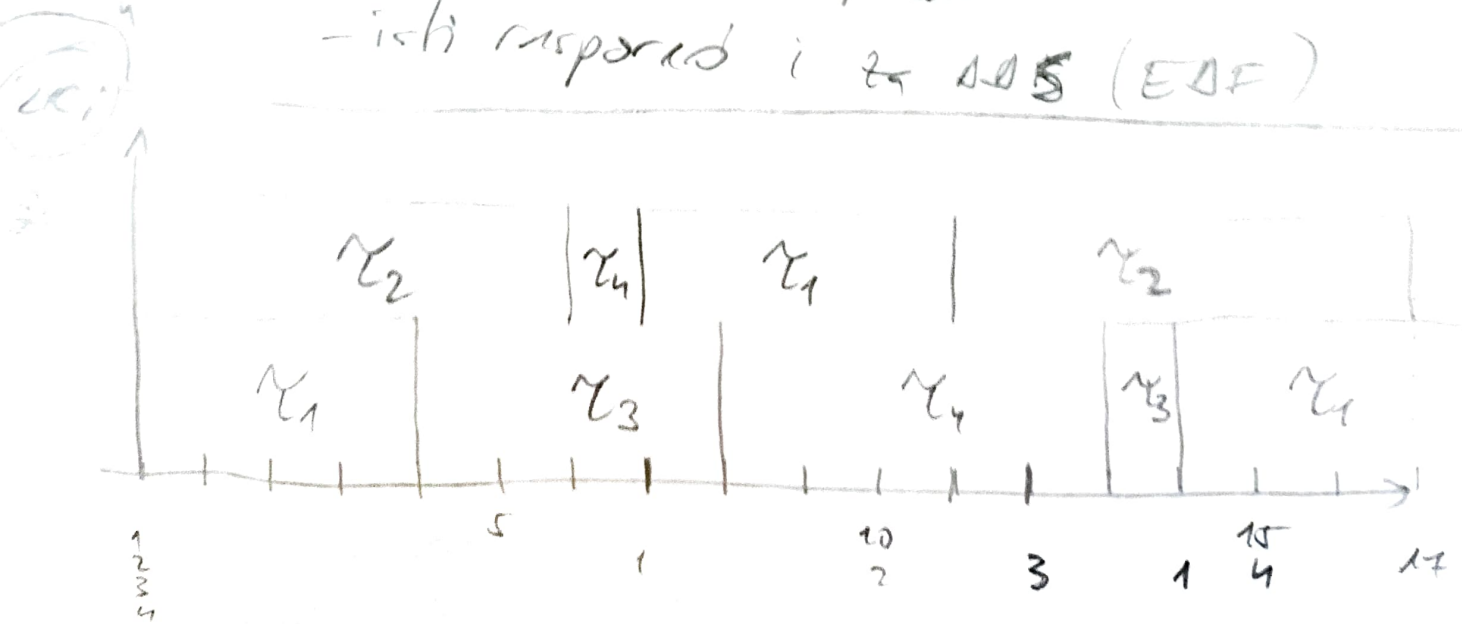
isti sustav preko brojnjeg trenutka ta.



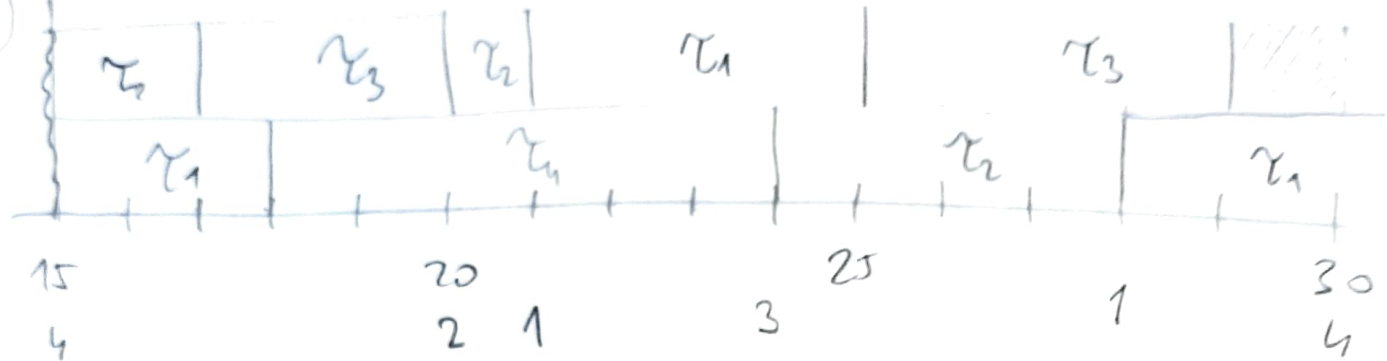
isti sustav s RMPA na dvo-pru. rač.



- isti raspored i za EDF (EDF)



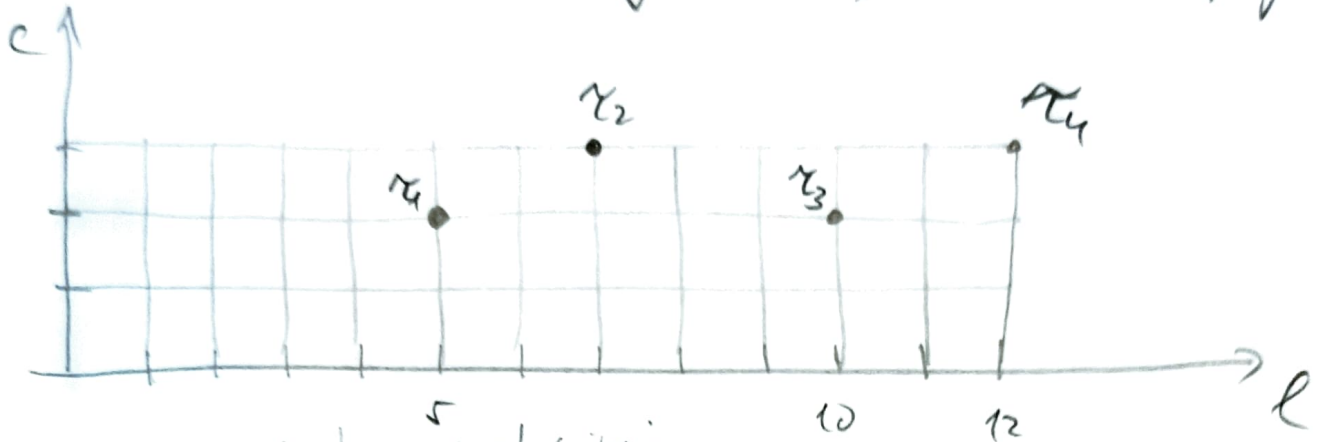
2



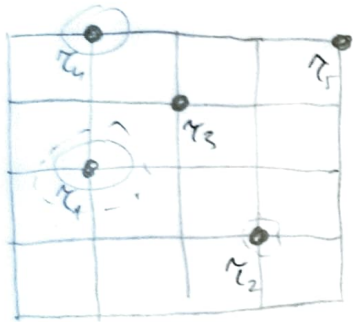
LLF/EDF

(3)

Načrtati početni l/c graf za sistem od pete

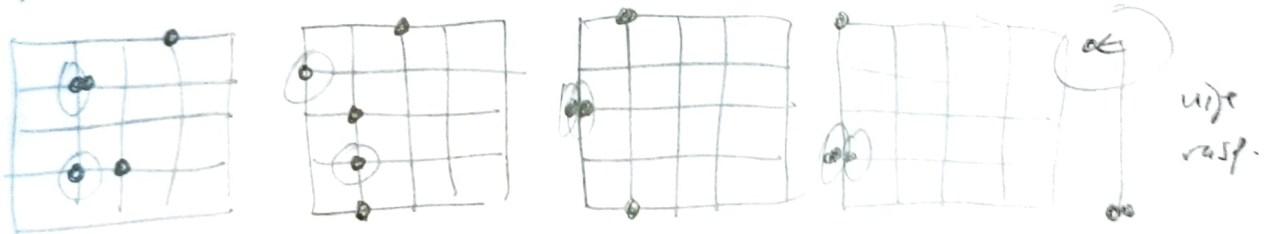


Projekti rasporediti ako se koristi kvitovanje
Raspored + EDF

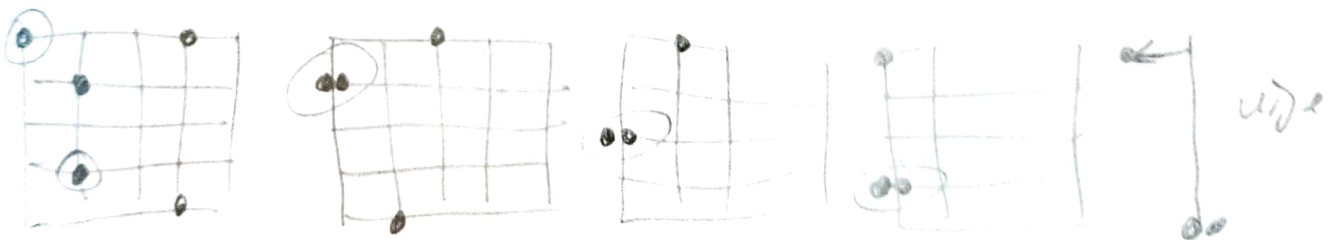


$$\begin{aligned} c_1 &= 2 & \delta_1 &= 3 \\ c_2 &= 1 & \delta_2 &= 4 \\ c_3 &= 3 & \delta_3 &= 5 \\ c_4 &= 4 & \delta_4 &= 5 \\ c_5 &= 4 & \delta_5 &= 8 \end{aligned}$$

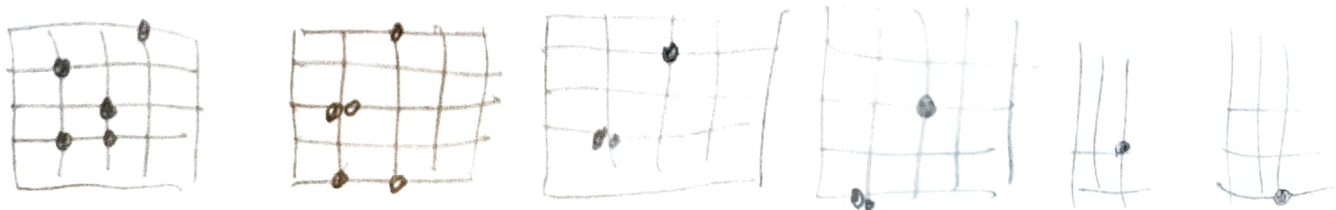
na 2 proc. rač. LLF + EDF



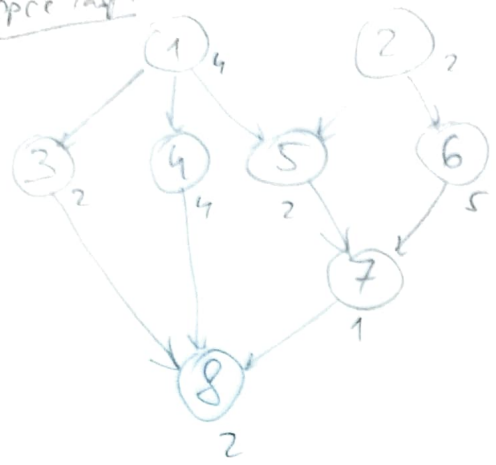
2 proc. EDF + LLF



3 proc. LLF + EDF



oprire raff.



(9)

t=0 $\{\tau_1, \tau_2\}$ $c_1=4, c_2=2 \Rightarrow d_1=1, d_2=1$

t=2 $\{\tau_1, \tau_6\}$ $c_1'=2, c_6=5 \Rightarrow d_1=1, d_2=1$

t=4 $\{\tau_3, \tau_4, \tau_5, \tau_6\}$ $c_3=2, c_4=4, c_5=2, c_6=3$

$\tau_7 = \{\tau_5, \tau_6, \tau_7\}$ $c_7 = c_5 + c_6 + c_7 = 2 + 3 + 1 = 6$

$\Delta t = \frac{c_3 + c_4 + c_7}{2} = \frac{2 + 4 + 6}{2} = 6 \rightarrow$ tu ce sri bitigatori

$d_3 = \frac{2}{6} = \frac{1}{3}$

$d_4 = \frac{4}{6} = \frac{2}{3}$

$d_7 = \frac{6}{6} = 1$

$d_5 = ?$
 $d_6 = ?$

$\Delta t = \frac{c_5 + c_6}{2} = \frac{2 + 3}{1} = 5$

$d_5 = \frac{2}{5}$

$d_6 = \frac{3}{5}$

do tu ce
 τ_5 & τ_6 bitigatori

t=9 (4+5)

$\{\tau_3, \tau_4, \tau_7\}$

$d_3 = \frac{1}{3}$ $c_3' = 2 - 5 \cdot \frac{1}{3} = \frac{1}{3}$

$d_4 = \frac{2}{3}$ $c_4' = 4 - 5 \cdot \frac{2}{3} = \frac{2}{3}$

$d_7 = 1$

t=10 $\{\tau_8\}$ $d_8 = 1$

t=12 - sri gotori

γ_1	γ_1	γ_5	γ_6	γ_2	
γ_2	γ_6	γ_3	γ_4	γ_3	γ_8
		5		10	

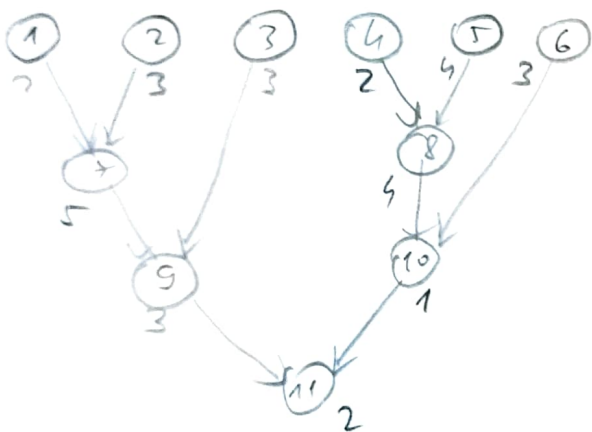
$$\Downarrow$$

$$C_2 = \frac{5}{3}$$

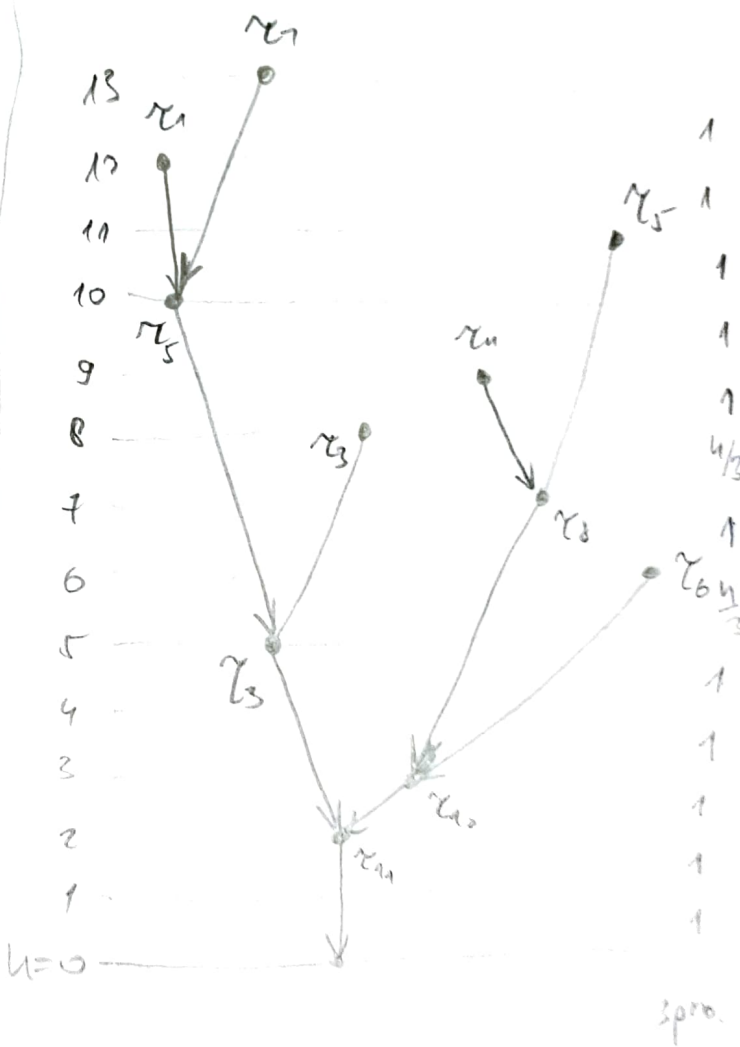
$$C_4 = \frac{10}{3}$$

Stable state solution

3 processors



optimal



$$\Sigma = 13 - \frac{2}{3}$$