Teste de Mesa: Bellman-Held-Karp

	1	2	3	4
1	–			
2	10	–		
3	15	35	–	
4	20	25	30	–

$C(\{2\},2) = 10$ — 1–2
$C(\{3\},3) = 15$ — 1–3
$C(\{4\},4) = 20$ — 1–4

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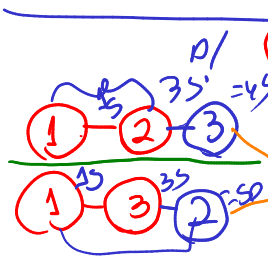
p/ $s = 2$ $\{2,3\}, \{2,4\}, \{3,4\}$



- $S = \{2,3\}$

$v = 2 \rightsquigarrow C(\{2,3\},2) = \min_{\substack{u \neq 2 \\ u \in S \setminus \{2,3\}}} \{ C(\{3\},3) + 35 = 60 \} = 60$

$v = 3 \rightsquigarrow C(\{2,3\},3) = \min_{\substack{u \neq 3 \\ u \in S}} \{ C(\{2\},2) + 35 = 45 \} = 45$

- $S = \{2,4\}$

$v = 2 \rightsquigarrow C(\{2,4\},2) = \min_{u \in \{4\}} \{ C(\{4\},4) + 25 = 45 \}$

$v = 4 \rightsquigarrow C(\{2,4\},4) = \min_{u \in \{2\}} \{ C(\{2\},2) + 25 = 35 \}$

- $S = \{3,4\}$

$v = 3 \rightsquigarrow C(\{3,4\},3) = \min_{u \in \{4\}} \{ C(\{4\},4) + 30 = 50 \}$

$v = 4 \rightsquigarrow C(\{3,4\},4) = \min_{u \in \{3\}} \{ C(\{3\},3) + 30 = 45 \}$

$\Delta = 3$ $\{2,3,4\}$

$S = \{2,3,4\}$

$v = 2 \rightsquigarrow C(\{2,3,4\},2) = \min_{\substack{u \neq 2 \\ u \in \{3,4\}}} \{ C(\{3,4\},3) + 35 = 85,\ C(\{3,4\},4) + 25 = 70 \}$

$= 70$

$v = 3 \rightsquigarrow C(\{2,3,4\},3) = \min_{\substack{u \neq 3 \\ u \in \{2,4\}}} \{ C(\{2,4\},2) + 35 = 80,\ C(\{2,4\},4) + 30 = 65 \}$

$= 65$

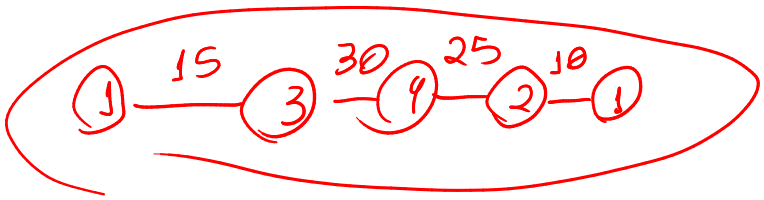
$v = 4 \rightsquigarrow C(\{2,3,4\},4) = \min_{\substack{u \neq 4 \\ u \in \{2,3\}}} \{ C(\{2,3\},2) + 25 = 50 + 25 = 75,\ C(\{2,3\},3) + 30 = 45 + 30 = 75 \}$

$= 75$

ciclo = {1, 2, 3, 4}

$$\min_{v \in \{2,3,4\}} \begin{cases} C(\{2,3,4\}, 2) + w(2,1) = 70 + 10 = 80 \\ C(\{2,3,4\}, 3) + w(3,1) = 65 + 15 = 80 \\ C(\{2,3,4\}, 4) + w(4,1) = 75 + 20 = 95 \end{cases}$$

Resposta:



custo = 80