

Case	1	2	3	4
1	0	4	9	8
2	4	0	12	2
3	9	12	0	10
4	8	2	10	0

$$L(2, \emptyset) = 4$$

$$L(3, \emptyset) = 9$$

$$L(4, \emptyset) = 8$$

$$L(2, \{3\}) = \overset{2 \rightarrow 3}{12} + \overset{3 \rightarrow 1}{9} = 21$$

$$L(2, \{4\}) = 2 + 8 = 10$$

$$L(3, \{2\}) = 12 + 4 = 16$$

$$L(3, \{4\}) = 10 + 8 = 18$$

$$L(4, \{2\}) = 2 + 4 = 6$$

$$L(4, \{3\}) = 10 + 9 = 19$$

$$L(2, \{3,4\}) = \min \{ l_{2,3} + L(3, \{4\}), \\ l_{2,4} + L(4, \{3\}) \}$$

$$= \min \{ 12 + 18, \underline{2 + 19} \} = 21$$

$$L(3, \{2,4\}) = \min \{ l_{3,2} + L(2, \{4\}), \\ l_{3,4} + L(4, \{2\}) \}$$

$$= \min \{ 12 + 10, \underline{10 + 6} \} = 16$$

$$L(4, \{2,3\}) = \dots = 23$$

Gesamtlösung: $L(1, \{2,3,4\}) = \min \{ l_{1,2} + L(2, \{3,4\}), l_{1,3} + L(3, \{2,4\}), l_{1,4} + L(4, \{2,3\}) \}$

$$= \min \{ \underline{4 + 21}, 9 + 16, 8 + 23 \} = \underline{25}$$

