

$$6x_{13}^1 + 5x_{13}^2 + 4x_{14}^1 + 6x_{14}^2 + 7x_{21}^1 + 9x_{21}^2 + 7x_{23}^1 + 7x_{23}^2 + 9x_{24}^1 + 6x_{24}^2 + 8x_{34}^1 + 3x_{34}^2 \rightarrow \min$$

$$\begin{aligned} x_{13}^1 + x_{14}^1 - x_{21}^1 &= 4 \\ x_{21}^1 + x_{23}^1 + x_{24}^1 &= 19 \\ x_{34}^1 - x_{13}^1 - x_{23}^1 &= -8 \\ -x_{14}^1 - x_{24}^1 - x_{34}^1 &= -15 \end{aligned}$$

$$\begin{aligned} x_{13}^2 + x_{14}^2 - x_{21}^2 &= 1 \\ x_{21}^2 + x_{23}^2 + x_{24}^2 &= 9 \\ x_{34}^2 - x_{13}^2 - x_{23}^2 &= 7 \\ -x_{14}^2 - x_{24}^2 - x_{34}^2 &= -17 \end{aligned}$$

$$4x_{13}^1 + 2x_{13}^2 + 2x_{14}^1 + 4x_{14}^2 + 5x_{21}^1 + 10x_{21}^2 + 10x_{23}^1 + 2x_{23}^2 + 9x_{24}^1 + 4x_{24}^2 + 7x_{34}^1 + 9x_{34}^2 = 384$$

$$5x_{13}^1 + 8x_{13}^2 + 3x_{14}^1 + 2x_{14}^2 + 9x_{21}^1 + 8x_{21}^2 + 2x_{23}^1 + 8x_{23}^2 + 7x_{24}^1 + 4x_{24}^2 + 9x_{34}^1 + x_{34}^2 = 211$$

$$4x_{13}^1 + 2x_{13}^2 + 4x_{14}^1 + 6x_{14}^2 + 7x_{21}^1 + 2x_{21}^2 + 4x_{23}^1 + 10x_{24}^1 + 8x_{24}^2 + 9x_{34}^1 + 8x_{34}^2 = 299$$

$$x_{13}^1 + 6x_{13}^2 + x_{14}^1 + x_{14}^2 + 8x_{21}^1 + 7x_{21}^2 + 5x_{23}^1 + 2x_{23}^2 + 2x_{24}^1 + x_{24}^2 + 6x_{34}^1 + 7x_{34}^2 = 206$$

$$\begin{aligned} x_{21}^1 + x_{21}^2 &\leq 19, \quad x_{21}^1 \geq 0, \quad x_{21}^2 \geq 0 \\ x_{24}^1 + x_{24}^2 &\leq 18, \quad x_{24}^1 \geq 0, \quad x_{24}^2 \geq 0 \end{aligned}$$

$$\begin{aligned} 0 &\leq x_{14}^1 \leq 6 \\ 0 &\leq x_{14}^2 \leq 11 \\ 0 &\leq x_{23}^1 \leq 11 \end{aligned}$$

$$\begin{aligned} x_{13}^1 &\geq 0 \\ x_{13}^2 &\geq 0 \\ x_{23}^2 &\geq 0 \\ x_{34}^1 &\geq 0 \\ x_{34}^2 &\geq 0 \end{aligned}$$

(i, j)	$(1, 3)$		$(1, 4)$		$(2, 1)$		$(2, 3)$		$(2, 4)$		$(3, 4)$	
k	1	2	1	2	1	2	1	2	1	2	1	2
U^k	+	+	+	+	+	+	+	+	+	+	+	+
U_1^k			+	+			+					
U_0					+				+			
$K(i, j)$	$\{1, 2\}$		$\{1, 2\}$		$\{1, 2\}$		$\{1, 2\}$		$\{1, 2\}$		$\{1, 2\}$	
$K_1(i, j)$	\emptyset		$\{1, 2\}$		\emptyset		$\{1\}$		\emptyset		\emptyset	
$K_0(i, j)$					$\{1, 2\}$				$\{1, 2\}$			