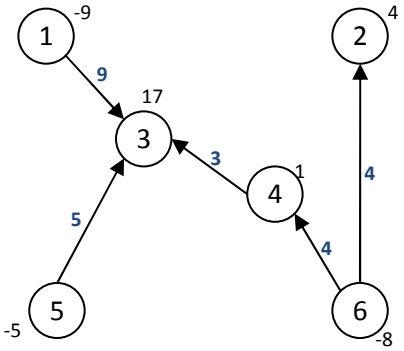
zu Folie 22

Lieferanten: 1, 5, 6

Kunden: 2, 3, 4



mögliche Startlösung

$x_{13} = 9,\ x_{53} = 5,\ x_{43} = 3,\ x_{64} = 4,\ x_{62} = 4$

$Ax = b$

$0 \le x \le u$

zu Folie 42

$x:\ Ax = b$

$0 \le x \le u$

$\forall ij \notin T:$

$x_{ij} = u_{ij},\ falls\ y_i + c_{ij} < y_j$

$x_{ij} = 0,\ falls\ y_i + c_{ij} > y_j$

$\tilde{x}:\ A\tilde{x} = b$

$0 \le \tilde{x} \le u$

$\left(c_{ij} + y_i - y_j\right)\tilde{x}_{ij} \ge \left(c_{ij} + y_i - y_j\right)x_{ij} \quad (*)$

$\bar{c}_{ij} * \tilde{x}_{ij} \ge \bar{c}_{ij} * x_{ij}$

$\bar{c}:\ \bar{c}_{ij} = c_{ij} + y_i - y_j \quad \rightarrow \quad c = \bar{c} + yA \quad (**)$

$$c\tilde{x} \overset{**}{=} \bar{c}\tilde{x} + y\underbrace{A\tilde{x}}_{b} = \bar{c}\tilde{x} + yb \overset{*}{\ge} \bar{c}x + yb = \bar{c}x + y\underbrace{Ax}_{=b} \overset{**}{=} cx$$

$c\tilde{x} \ge cx \quad \rightarrow$ x ist optimal!