Chapter 1:

Chapter 2: Page 37, line -12 A heap is stored as an array, but is viewed as the partially ordered structure shown in Figure 2.7.

Chapter 3:

Chapter 4:

Chapter 5:

Chapter 6:

Chapter 7:

Chapter 8:

Page 181, line -16 We first make two copies u_1, u_2 of each vertex u of G and set $V(N) = \{u_1, u_2 : u \in V(G)\}$.

Page 181, line 3 Consequently any st-path $suvw \cdots t$ in G corresponds

Page 181, line -16 Let $U = \{u : u_1 u_2 \in K\}$.

Page 181, line -5 If $s \not\longrightarrow t$, then by the Theorem 8.9,

Chapter 9:

Chapter 10:

Chapter 11:

Chapter 12: Page 322, Line 6

If the tree T is not a hamilton path, consider the situation where the DFS is visiting vertex u, and a recursive call $\mathrm{DFS}(v)$ is made to construct a subtree T_{uv}, where v is adjacent to u. Refer to Figure 12.26. When T_{uv} is constructed, *LowPt*$[v]$ is calculated.

Chapter 13:

Chapter 14: Page 396, line -7

$$[0, 0, \ldots, 0, \underbrace{1}_{i\mathit{th}}, 0, 0, \ldots, 0]^T.$$

Chapter 15:

Page 434, line -9

$$x_j = 0, \textit{whenever } A_j^T W < c_j$$

Page 436, line -6

$$A_j^T W_{\text{OPT}} > 0 \text{ for some } j \notin J.$$

Page 439, line 4

$$= \left| \sum_{\sigma \in S_m} \textsc{Sign}(\sigma) \prod_{h=1}^{m} B'[h, \sigma(h)] \right|$$

Page 439, line 11,12,13 Suppose that the optimal basis B of (RP) includes the column A_j. Then $A_j^T W = c_j$ and by Corollary 15.7 the optimal solution to (DRP) corresponding to X is $W_{\text{OPT}} = B^{-T}\gamma_B$, where γ_B are the entries of

Page 440, line 2,3

$$= c_j + 0$$
$$= c_j$$

Page 441, line 7,8

$x_{ij} \geq 0$ for all $(i, j) \in J$
$x_{ij} = 0$ for all $(i, j) \notin J$

Page 441, line 12

subject to: $w_i - w_j \leq c_{ij}$ for each edge $(i, j) \in J$

Page 445,line 11

$$[\mathit{Row}_s(A)]^T f = 1$$

Page 445,line 16,17

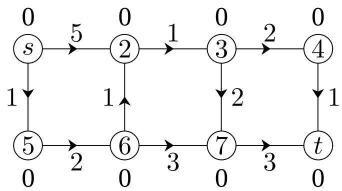
su has zero flow or is unsaturated;
su is saturated or does not have zero flow.

Page 445,line -13,-12

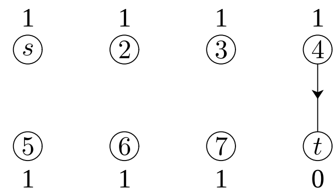
vu has zero flow or is unsaturated;
vu is saturated or does not have zero flow.

Page 442,443

Iteration 1

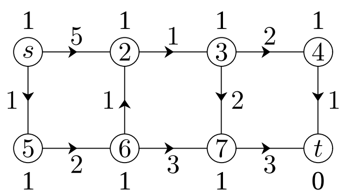


(D): $W = [0, 0, 0, 0, 0, 0, 0, 0]$
$J = \{\}$

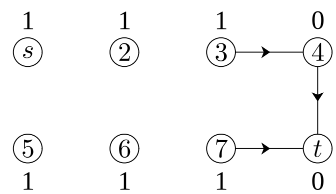


(DRP): $W_{\text{OPT}} = [1, 1, 1, 1, 1, 1, 1, 0]$
$\theta^\star = 1$ for edge $(4, t)$

Iteration 2

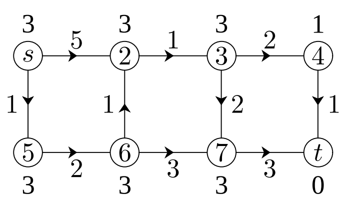


(D): $W = [1, 1, 1, 1, 1, 1, 1, 0]$
$J = \{(4, t)\}$

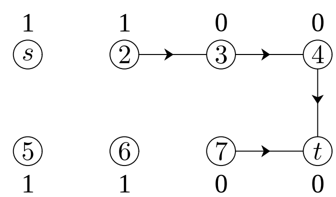


(DRP): $W_{\text{OPT}} = [1, 1, 1, 0, 1, 1, 1, 0]$
$\theta^\star = 2$ for edges $(3, 4)$ and $(7, t)$

Iteration 3

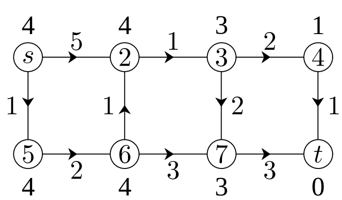


(D): $W = [3, 3, 3, 1, 3, 3, 3, 0]$
$J = \{(4, t), (3, 4), (7, t)\}$

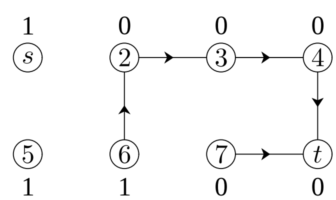


(DRP): $W_{\text{OPT}} = [1, 1, 0, 0, 1, 1, 0, 0]$
$\theta^\star = 1$ for edge $(2, 3)$

Iteration 4

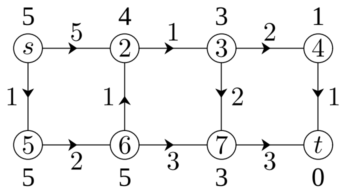


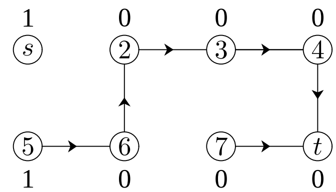
(D): $W = [4, 4, 3, 1, 4, 4, 3, 0]$
$J = \big\{(4, t), (3, 4), (7, t), (2, 3)\big\}$



(DRP): $W_{\text{OPT}} = [1, 0, 0, 0, 1, 1, 0, 0]$
$\theta^\star = 1$ for edge $(6, 2)$

Iteration 5





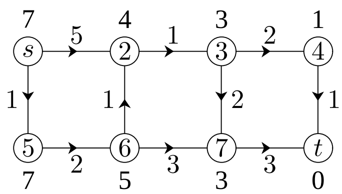
(D): $W = [5, 4, 3, 1, 5, 5, 3, 0]$

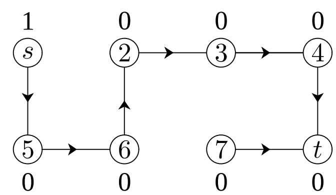
$J = \left\{ \begin{array}{l} (4, t), (3, 4), (7, t), (2, 3), \\ (6, 2) \end{array} \right\}$

(DRP): $W_{\text{OPT}} = [1, 0, 0, 0, 1, 0, 0, 0]$

$\theta^\star = 2$ for edge $(5, 6)$

Iteration 6





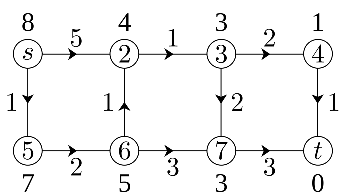
(D): $W = [7, 4, 3, 1, 7, 5, 3, 0]$

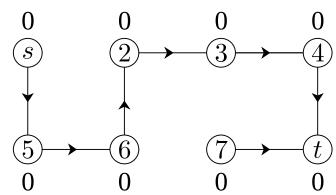
$J = \left\{ \begin{array}{l} (4, t), (3, 4), (7, t), (2, 3), \\ (6, 2), (5, 6) \end{array} \right\}$

(DRP): $W_{\text{OPT}} = [1, 0, 0, 0, 0, 0, 0, 0]$

$\theta^\star = 1$ for edge $(s, 5)$

Iteration 7





(D): $W = [8, 4, 3, 1, 7, 5, 3, 0]$

$J = \left\{ \begin{array}{l} (4, t), (3, 4), (7, t), (2, 3), \\ (6, 2), (5, 6), (s, 5) \end{array} \right\}$

(DRP): $W_{\text{OPT}} = [0, 0, 0, 0, 0, 0, 0, 0]$

Chapter 16: Page 467 Exercise 16.4.1 Remove part (d).