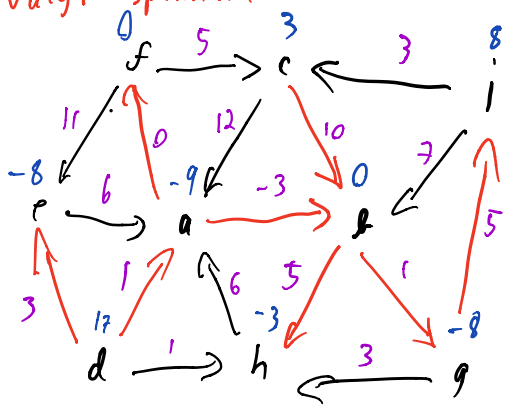
14.1

Tilbud

Kost

↗ Valgt spenntre



a) Fra balanselikningene:

(e) $x_{de} = 8$

(d) $-x_{de} - x_{da} = -17 \Rightarrow x_{da} = 9$

(f) $x_{af} = 0$

(a) $x_{da} - x_{af} - x_{ab} = -9 \Rightarrow x_{ab} = 0$

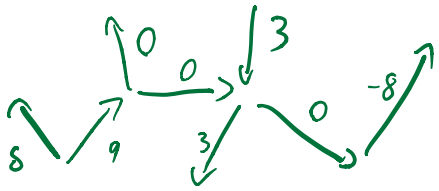
(c) $-x_{cb} = -3 \Rightarrow x_{cb} = 3$

(h) $x_{bh} = 3$

(b) $x_{ab} + x_{cb} - x_{bh} - x_{bg} = 0 \Rightarrow x_{bg} = 0$

(i) $x_{gi} = -8$

alasa



b) Vi setter $y_a = 0$.

$y_f - y_a = 0 \Rightarrow y_f = 0$

$y_a - y_d = 1 \Rightarrow y_d = -1$

$y_c - y_d = 3 \Rightarrow y_e = 2$

$y_e - y_a = -3 \Rightarrow y_e = -3$

$y_e - y_c = 10 \Rightarrow y_c = -13$

$y_h - y_e = 5 \Rightarrow y_h = 2$

$y_g - y_e = 1 \Rightarrow y_g = -2$

$y_i - y_g = 5 \Rightarrow y_i = 3$

c) Nå bruker vi dual tillatthet:

$z_{fc} = y_f + c_{fc} - y_c = 0 + 5 - (-13) = 18$

$z_{fe} = y_f + c_{fe} - y_e = 0 + 11 - 2 = 9$

$z_{ea} = y_e + c_{ea} - y_a = 2 + 6 - 0 = 8$

$z_{ca} = -1,$

$z_{ic} = 19$

$z_{ie} = 13$

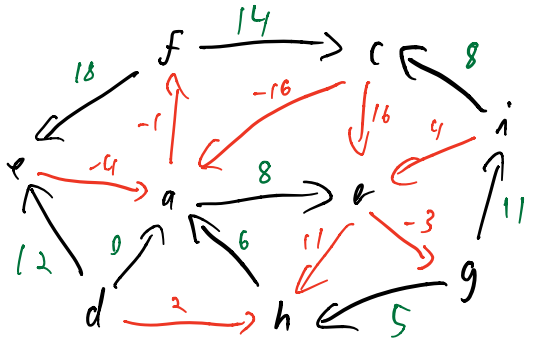
$z_{ha} = 8$

$z_{dh} = -2$

$z_{gh} = -1$

(14.2) ↗ Spennetre, primalflyt

Dual slakk



a) kant (c,a) skal ut. Subtrærne er $\{a,f,e\}$ og $\{c,b,i,g,h,d\}$. Kanten gir lik era siste til første.

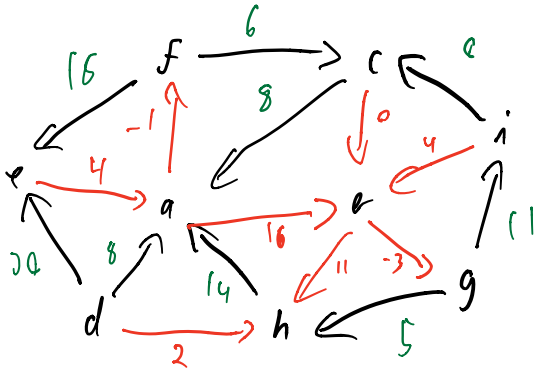
b) Kandidatene er (f,c) og (a,b), og sistnevnte har minst dual slakk.

c) Sykelen er (a,b,c) og vi ender på

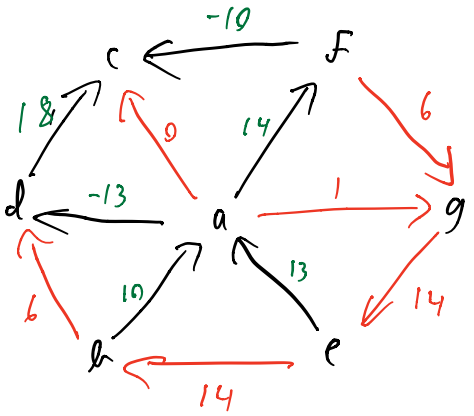
$$x_{ca} = 0, \quad x_{ab} = 16, \quad x_{cb} = 0.$$

Nye slakk:

$$z_{fc} = 14-8 = 16, \quad z_{ba} = 6+8 = 14, \quad z_{ca} = 0+8 = 8,$$
$$z_{da} = 0+8 = 8, \quad z_{de} = 12+8 = 20.$$



14.4



a) X_{ad} inn, så sykelen er (a, g, e, b, d). $X_{ad} = 1$, og

$X_{bd} = 5$, $X_{eb} = 13$, $X_{ge} = 13$, $X_{ag} = 0$.

b) X_{ag} skal ut.

c) X_{ad} hadde -13 dual slakk, så $z_{ag} = 13$.

$z_{af} = 27$, $z_{fc} = -23$, $z_{ca} = 0$, $z_{ba} = -3$, $z_{dc} = 5$.

sammevei — motsatt vei.