```
minimize cost:
        2*x[1,2] + 4*x[1,3] + 2*x[3,4] + x[4,5] + 3*x[4,6] + x[6,2] + 3*x[6,5];

subject to flow_balance[1]:
        -x[1,2] - x[1,3] + x[5,1] = 0;

subject to flow_balance[2]:
        x[1,2] - x[2,3] + x[6,2] = 1;

subject to flow_balance[3]:
        x[1,3] + x[2,3] - x[3,4] = 2;

subject to flow_balance[4]:
        x[3,4] - x[4,5] - x[4,6] = -7;

subject to flow_balance[5]:
        x[4,5] - x[5,1] + x[6,5] = 0;

subject to flow_balance[6]:
        x[4,6] - x[6,2] - x[6,5] = 4;

subject to capacity[1,2]:
        0 <= x[1,2] <= 2;

subject to capacity[1,3]:
        0 <= x[1,3] <= 5;

subject to capacity[2,3]:
        x[2,3] >= 0;

subject to capacity[3,4]:
        x[3,4] >= 0;

subject to capacity[4,5]:
        0 <= x[4,5] <= 5;

subject to capacity[4,6]:
        x[4,6] >= 0;

subject to capacity[5,1]:
        0 <= x[5,1] <= 5;

subject to capacity[6,2]:
        0 <= x[6,2] <= 1;

subject to capacity[6,5]:
        0 <= x[6,5] <= 3;

MINOS 5.51: optimal solution found.
3 iterations, objective 22
set {(i,j) in ARCS: l[i,j] < x[i,j] && x[i,j] < u[i,j]}  :=
(2,3)   (4,5)   (4,6)   (5,1);

set {(i,j) in ARCS: x[i,j] == u[i,j]}  := (1,2);

set {(i,j) in ARCS: x[i,j] == l[i,j]}  := (1,3) (3,4) (6,5);

x :=
1 2   2
1 3   0
2 3   2
3 4   0
4 5   2
4 6   5
5 1   2
6 2   1
6 5   0
;
```