Ford-Fulkerson Algorithm *(Give it a try on the graph below!)*

▷ start with $f(e) = 0$ for all arcs e

▷ while there is an *augmenting path* from s to t:

  • choose any such path $s = x_0, x_1, \ldots, x_k = t$.
  • augment the flow along this path as much as possible, i.e.:

    ○ <u>increase</u> f on "forward" arcs (x_i, x_{i+1})
    ○ <u>decrease</u> f on "backward" arcs (x_{i+1}, x_i)

▷ output f

a /1 b
/5
/4
/2
s /5
/2 /5
c

a /1 b
/5
/4
/2
s /5
/2 /5
c

a /1 b
/5
/4
/2
s /5
/2 /5
c

a /1 b
/5
/4
/2
s /5
/2 /5
c

a /1 b
/5
/4
/2
s /5
/2 /5
c

a /1 b
/5
/4
/2
s /5
/2 /5
c

a /1 b
/5
/4
/2
s /5
/2 /5
c