

# Edmonds-Karp Algorithm

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EDMONDS-KARP( $G, s, t$ )
1 for each edge  $(u, v) \in G.E$ 
2    $(u, v).f = 0$ 
3 while BFS gives a path  $p$  from  $s$  to  $t$  in the residual network  $G_f$ 
4    $c_f(p) = \min \{c_f(u, v) : (u, v) \text{ is in } p\}$ 
5   for each edge  $(u, v)$  in  $p$ 
6     if  $(u, v) \in E$ 
7        $(u, v).f = (u, v).f + c_f(p)$ 
8     else  $(v, u).f = (u, v).f - c_f(p)$ 
```