
Algoritmi 1: TRACEBACK-PATH(x, π, π_{REV})

```
1  $u = x$ 
2  $p = \langle \rangle$ 
3 while  $u$  is not nil do
4   | lisää  $u$   $p$ :n alkuun
5   |  $u = \pi(u)$ 
   | Kaksisuuntainen haku?
6 if  $\pi_{REV}$  is not nil then
7   |  $u = \pi_{REV}(x)$ 
8   | while  $u$  is not nil do
9   |   | lisää  $u$   $p$ :n loppuun
10  |   |  $u = \pi_{REV}(u)$ 
11 return  $p$ 
```

Algoritmi 2: BREADTH-FIRST-SEARCH(G, s, t)

```
1  $Q = \langle s \rangle$ 
2  $\pi(s) = \text{nil}$ 
3 while  $|Q| > 0$  do
4   |  $u = \text{DEQUEUE}(Q)$ 
5   | if  $u$  is  $t$  then
6   |   | return TRACEBACK-PATH( $u, \pi, \text{nil}$ )
7   | for  $(u, v) \in G.A$  do
8   |   | if  $v$  is not yet mapped in  $\pi$  then
9   |   |   |  $\pi(v) = u$ 
10  |   |   | ENQUEUE( $Q, u$ )
11  | return  $\langle \rangle$ 
```
