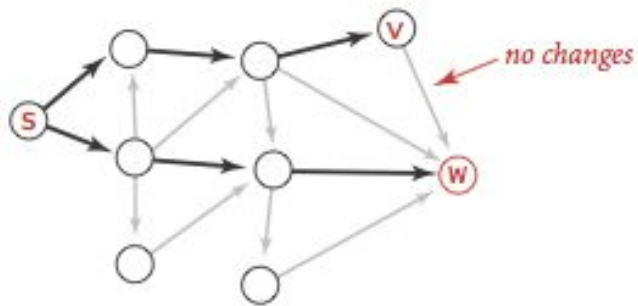
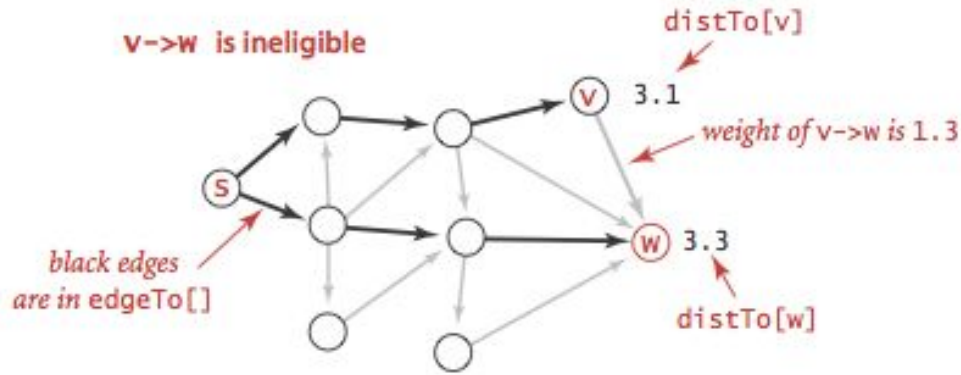




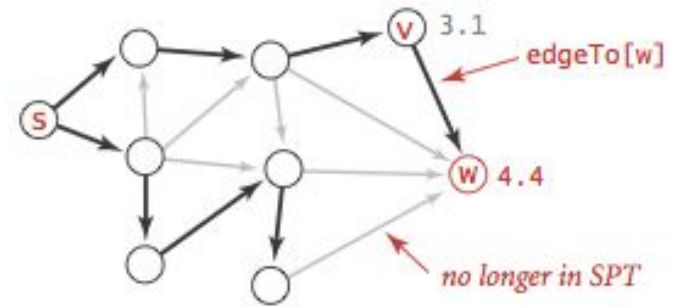
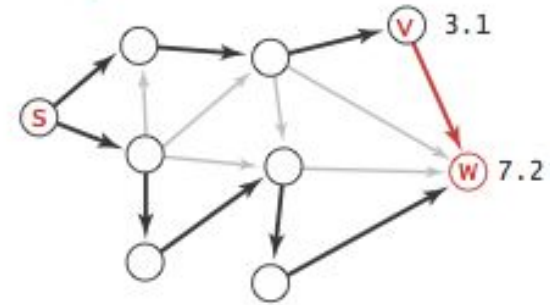
SHORTEST PATHS



Edge relaxation



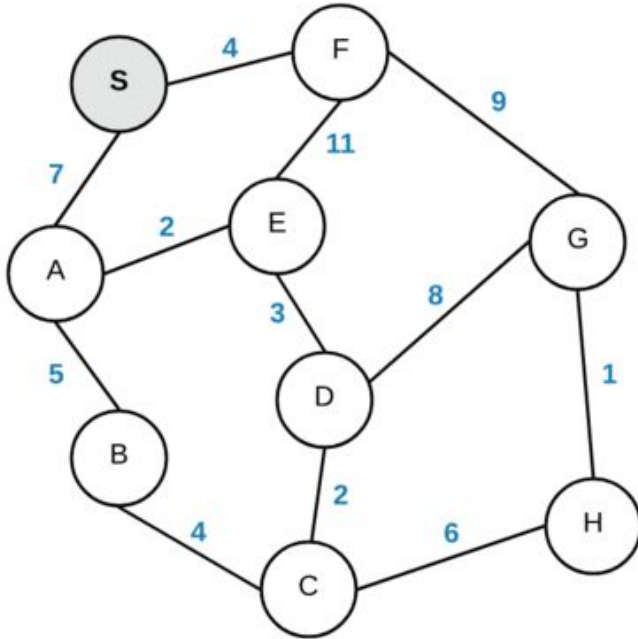
v->w is eligible





Dijkstra's algorithm

Fig 4



Dense
graphs

$O(V^2)$

Sparse
graphs

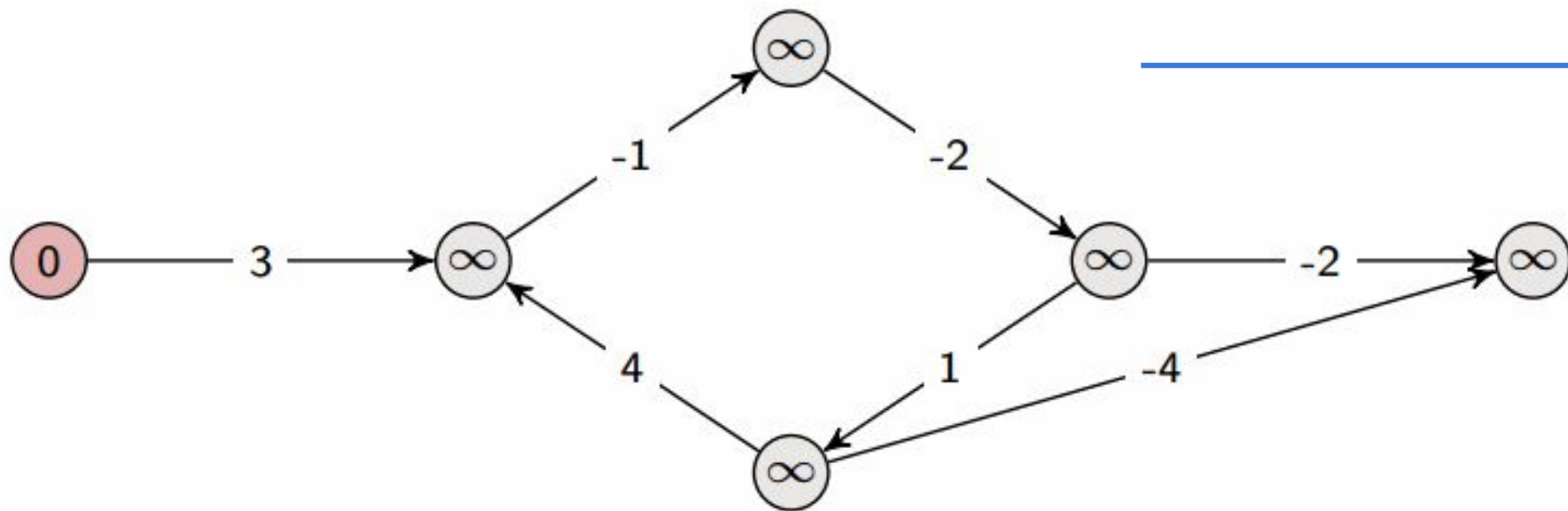
$O(E + V \log V)$



Bellman-Ford

Best case $O(E)$

Worst case $O(VE)$

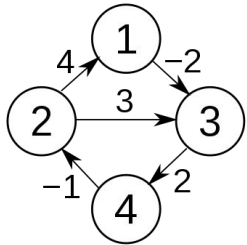




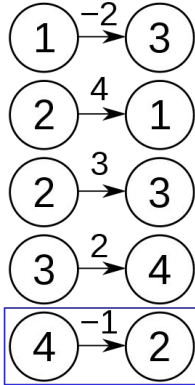
Floyd Warshall

Best case $O(V^3)$

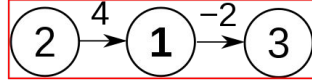
Worst case $O(V^3)$



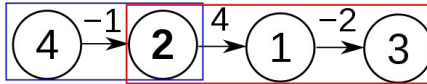
$k = 0:$



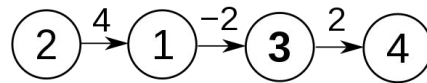
$k = 1:$



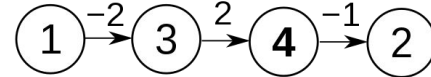
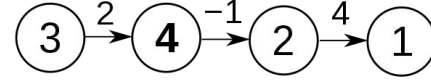
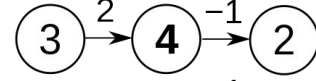
$k = 2:$



$k = 3:$

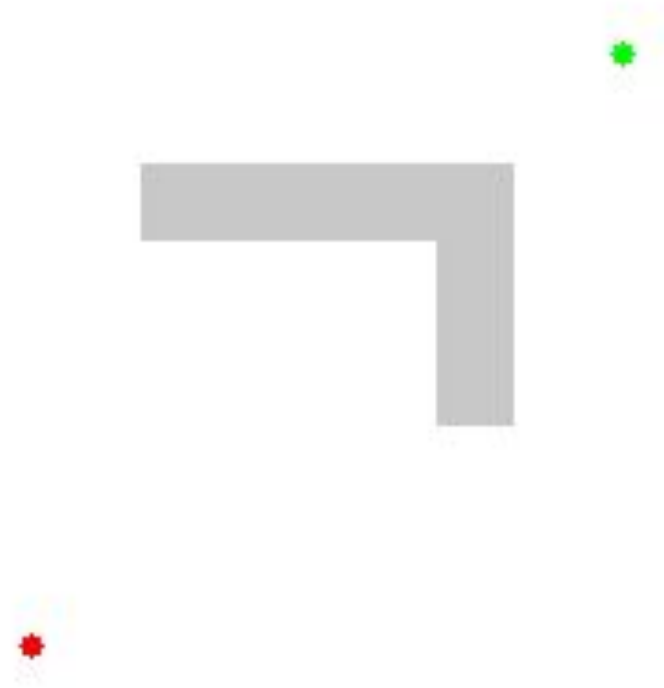


$k = 4:$





Worst case $O(E)$





Задачи

- ▶ [Пътуване](#)
- ▶ [Cheating](#)
- ▶ [Атака](#)
- ▶ [Sober](#)

A white computer monitor with a thin bezel and a stand, centered on a blue background with a white diagonal stripe. The monitor's screen is light gray and displays the words "THE" and "END" in a bold, sans-serif font. "THE" is in blue and "END" is in dark gray.

THE
END