A* Extra Examples

- To show what happens when

1. It encounters a node whose state is already on OPEN

2. It encounters a node whose state is already on CLOSED

A* Example
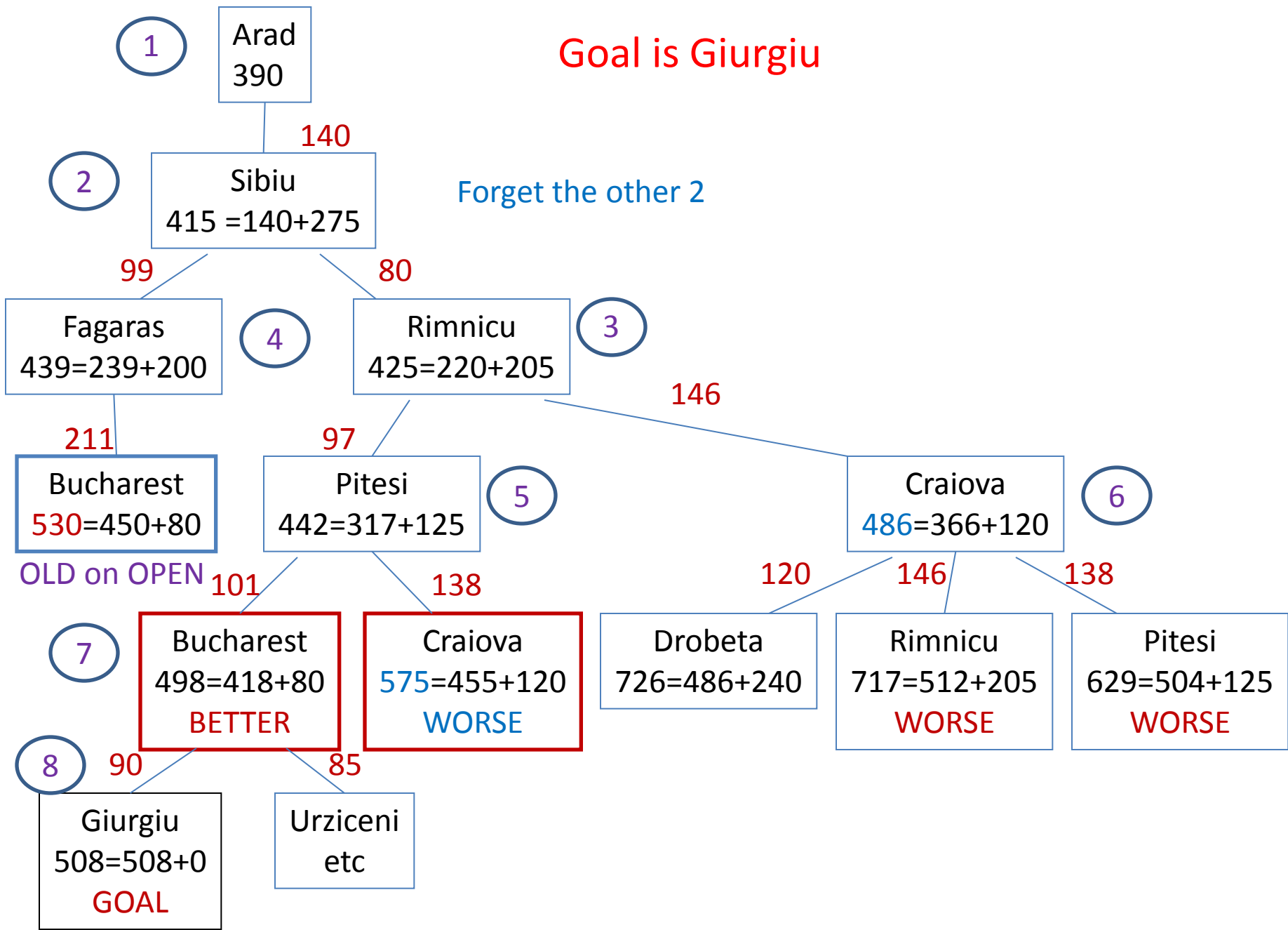
- Newly generated node s, but OLD on OPEN has the same state.
- Shortest path in Romania, but the goal is now Giurgiu, not Bucharest.

Straight line distances to Giurgiu (I made them up)

Arad	390
Sibiu	275
Fagaras	200
Rimnicu	205
Pitesi	125
Craiova	120
Bucharest	80
Drobeta	240

Goal is Giurgiu

① Arad
390

② Sibiu
415 =140+275

Forget the other 2

140

99

80

Fagaras
439=239+200

④

Rimnicu
425=220+205

③

146

211

97

Bucharest
530=450+80

Pitesi
442=317+125

⑤

Craiova
486=366+120

⑥

OLD on OPEN

120

146

138

101

138

⑦ Bucharest
498=418+80
BETTER

Craiova
575=455+120
WORSE

Drobeta
726=486+240

Rimnicu
717=512+205
WORSE

Pitesi
629=504+125
WORSE

⑧

90

85

Giurgiu
508=508+0
GOAL

Urziceni
etc

A* Example (abstract, pretend it's time)

- Newly generated node s, but OLD on CLOSED has the same state.