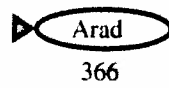


**Figure 3.2** A simplified road map of part of Romania.

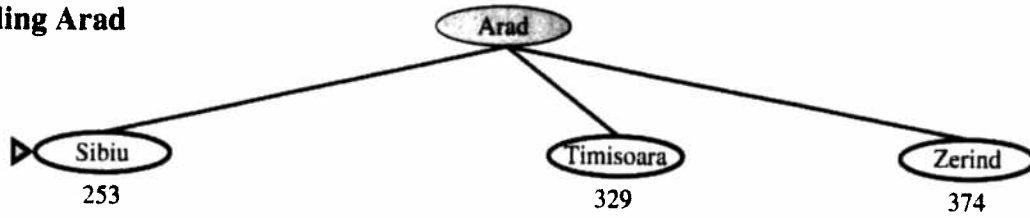
<b>Arad</b>	366	<b>Mehadia</b>	241
<b>Bucharest</b>	0	<b>Neamt</b>	234
<b>Craiova</b>	160	<b>Oradea</b>	380
<b>Dobreta</b>	242	<b>Pitesti</b>	100
<b>Eforie</b>	161	<b>Rimnicu Vilcea</b>	193
<b>Fagaras</b>	176	<b>Sibiu</b>	253
<b>Giurgiu</b>	77	<b>Timisoara</b>	329
<b>Hirsova</b>	151	<b>Urziceni</b>	80
<b>Iasi</b>	226	<b>Vaslui</b>	199
<b>Lugoj</b>	244	<b>Zerind</b>	374

**Figure 4.1** Values of  $h_{SLD}$ —straight-line distances to Bucharest.

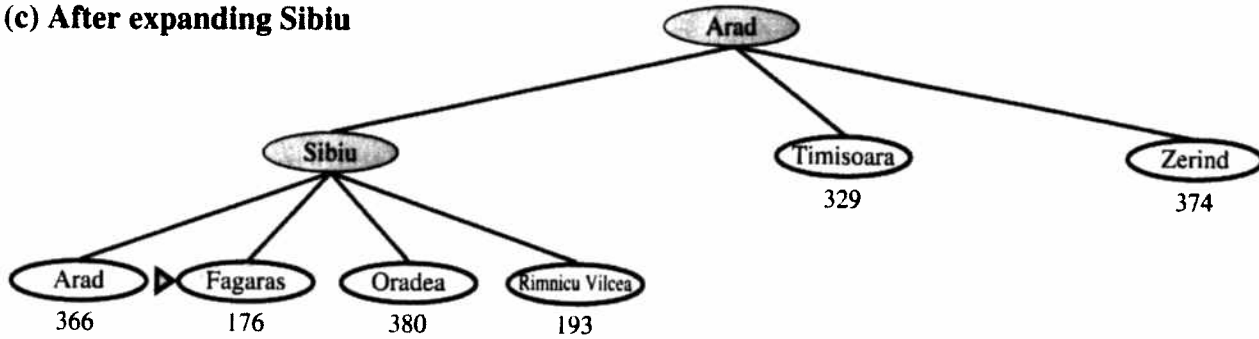
(a) The initial state



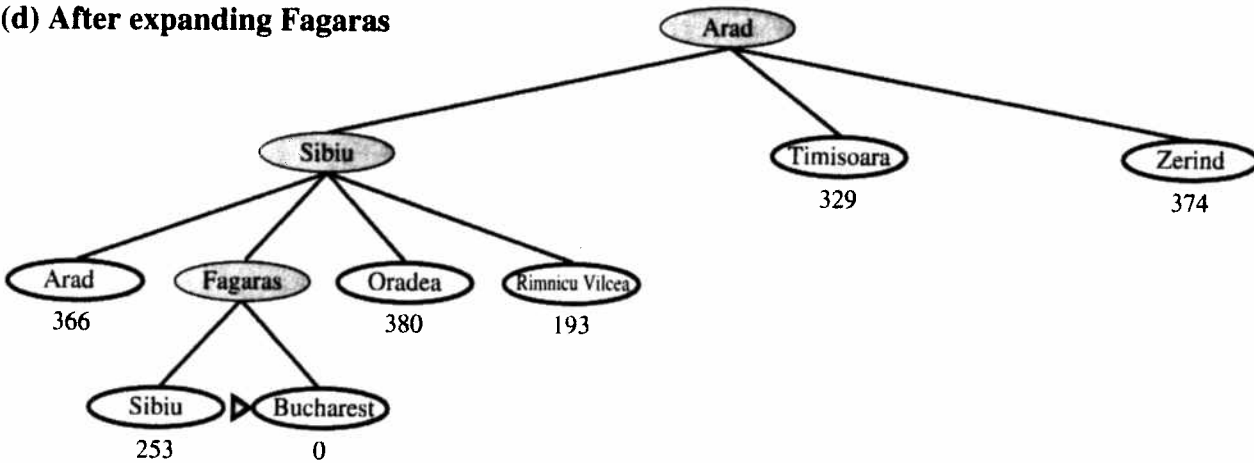
(b) After expanding Arad



(c) After expanding Sibiu

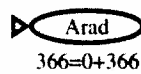


(d) After expanding Fagaras

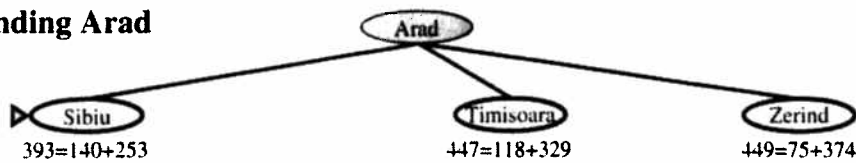


**Figure 4.2** Stages in a greedy best-first search for Bucharest using the straight-line distance heuristic  $h_{SLD}$ . Nodes are labeled with their  $h$ -values.

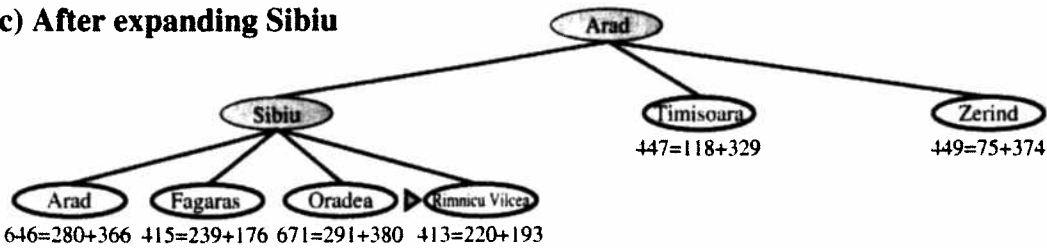
(a) The initial state



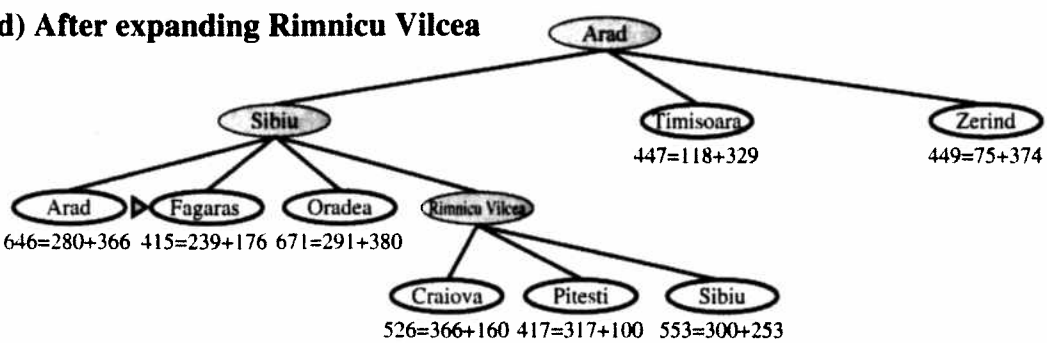
(b) After expanding Arad



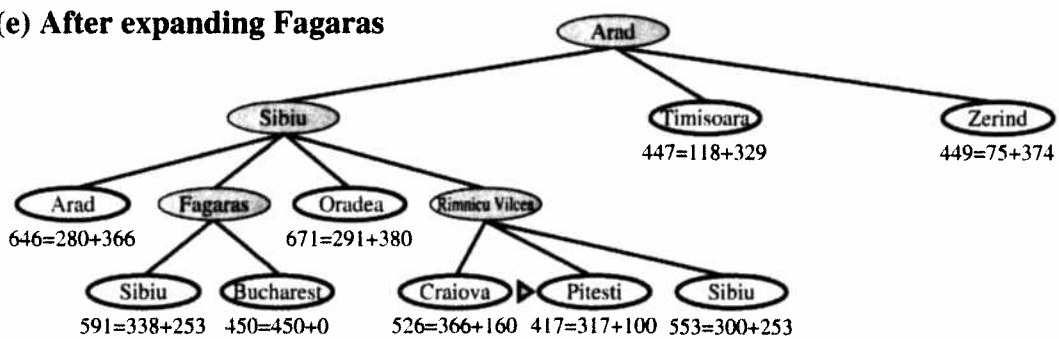
(c) After expanding Sibiu



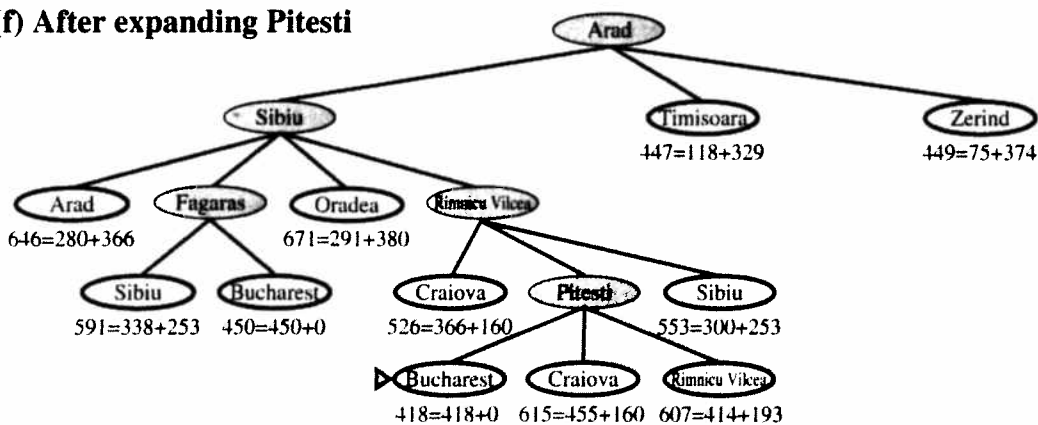
(d) After expanding Rimnicu Vilcea



(e) After expanding Fagaras



(f) After expanding Pitesti



**Figure 4.3** Stages in an A\* search for Bucharest. Nodes are labeled with  $f = g + h$ . The  $h$  values are the straight-line distances to Bucharest taken from Figure 4.1.