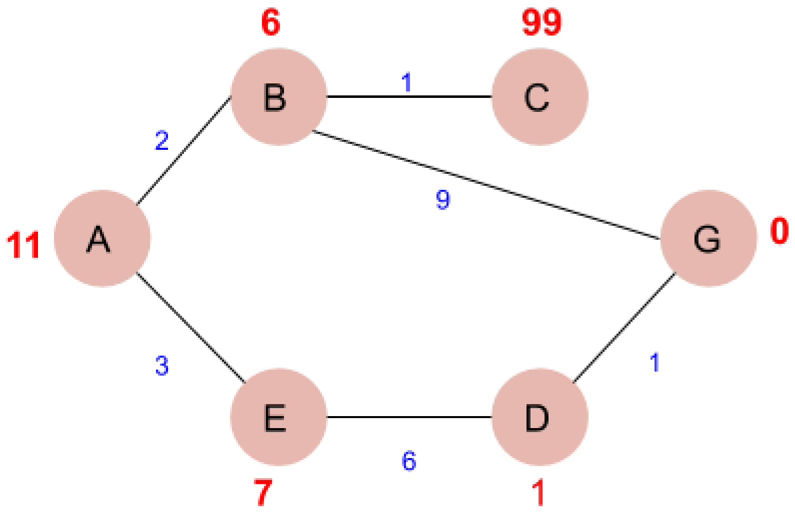

- g(x) + h(x) = f(x)
- 0+ 11 =11
- Thus for A, we can write
- A=11

Now from A, we can go to point B or point E, so we compute f(x) for each of them

- A → B = 2 + 6 = 8
- A → E = 3 + 7 = 10

Since the cost for A → B is less, we move forward with this path and compute the f(x) for the children nodes of B

Since there is no path between C and G, the heuristic cost is set infinity or a very high value

- A → B → C = (2 + 1) + 99= 102
- A → B → G = (2 + 9) + 0 = 11

Here the path A → B → G has the least cost but it is still more than the cost of A → E, thus we explore this path further

A → E → D = (3 + 6) + 1 = 10

Comparing the cost of A → E → D with all the paths we got so far and as this cost is least of all we move forward with this path. And compute the f(x) for the children of D

A → E → D → G = (3 + 6 + 1) +0 =**10**

Now comparing all the paths that lead us to the goal, we conclude that A → E → D → G is the most cost-effective path to get from A to G.