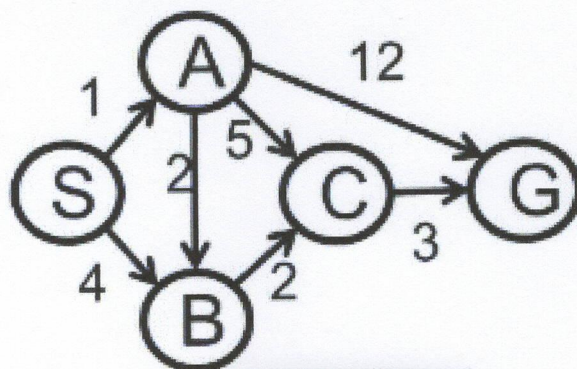
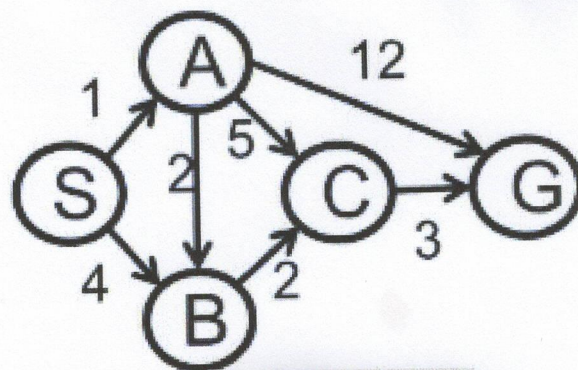


### State-Space Graph



State	H
S	7
A	6
B	2
C	1
G	0

### State-Space Graph



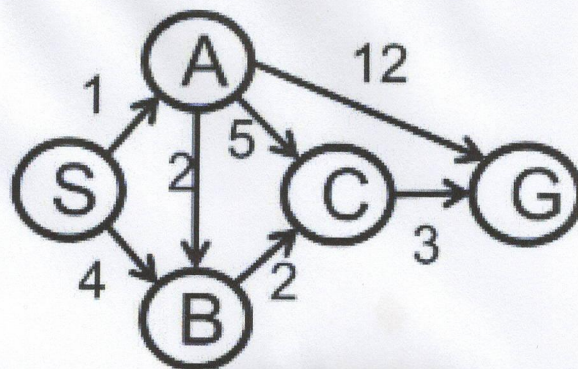
State	H
S	7
A	6
B	2
C	1
G	0

Search Tree:

$$S, f = g + h = 0 + 7 = 7$$



## State-Space Graph



State	H
S	7
A	6
B	2
C	1
G	0

Search Tree:

Visited: S ✓

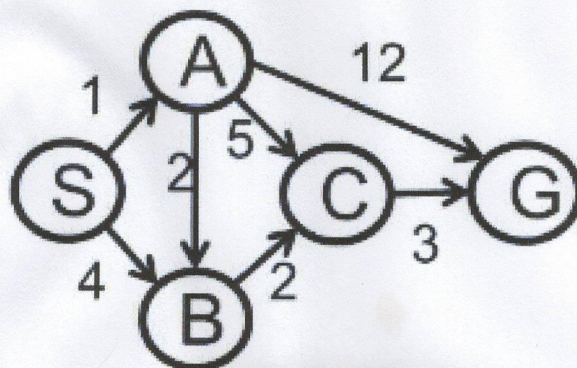
$$S, f = g + h = 0 + 7 = 7$$

$$S-A, f = g + h = (0 + 1) + 6 = 7$$

$$S-B, f = g + h = (0 + 4) + 2 = 6$$



## State-Space Graph



State	H
S	7
A	6
B	2
C	1
G	0

Search Tree:

Visited:  $S, A, B$

$$S, f = g + h = 0 + 7 = 7$$

$$S-A, f = g + h = (0 + 1) + 6 = 7$$

$$S-B, f = g + h = (0 + 4) + 2 = 6$$

$$S-A-B, f = g + h = (1 + 2) + 2 = 5$$

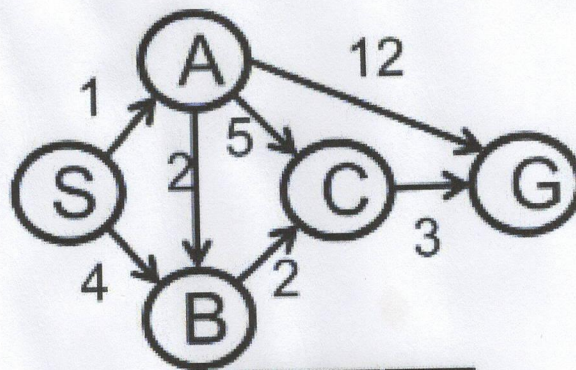
$$S-A-C, f = g + h = (1 + 5) + 1 = 7$$

$$S-A-G, f = g + h = (1 + 12) + 0 = 13$$

$$S-B-C, f = g + h = (4 + 2) + 1 = 7$$



## State-Space Graph

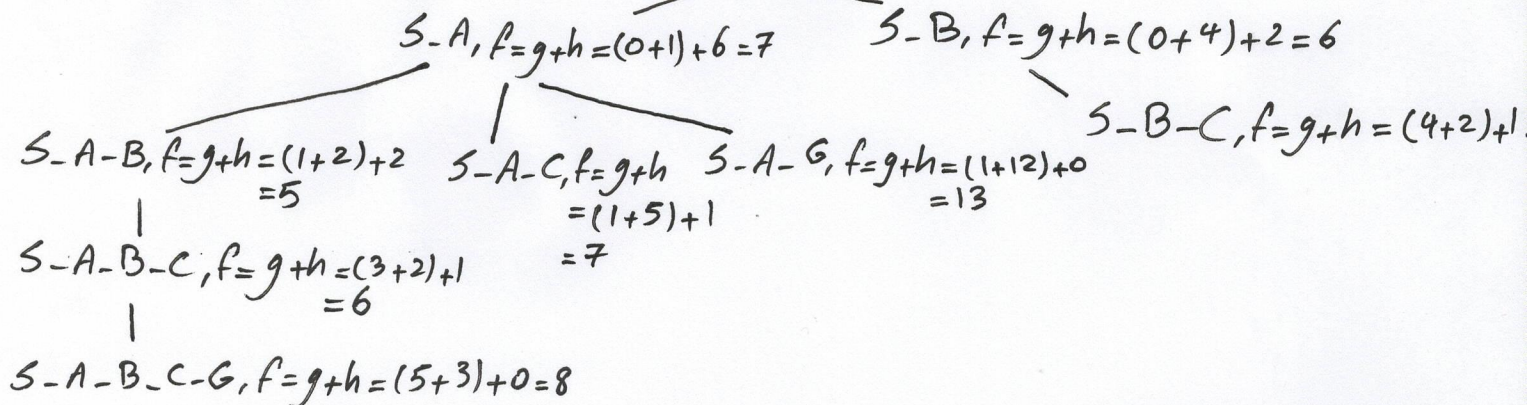


State	H
S	7
A	6
B	2
C	1
G	0

Search Tree:

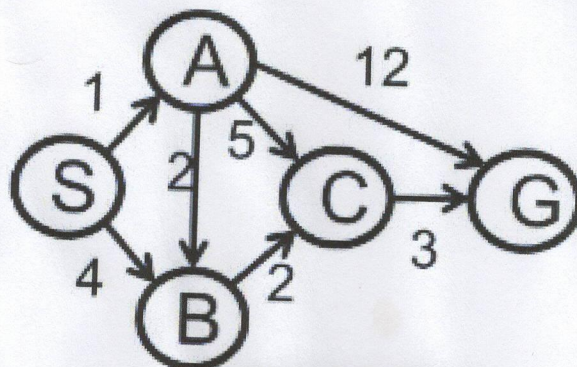
$$S, f = g + h = 0 + 7 = 7$$

Visited: ~~S~~, A, B, C





## State-Space Graph



State	H
S	7
A	6
B	2
C	1
G	0

Search Tree:

$$S, f = g + h = 0 + 7 = 7$$

Visited: ~~S~~, A, B, C  
(Expanded)

