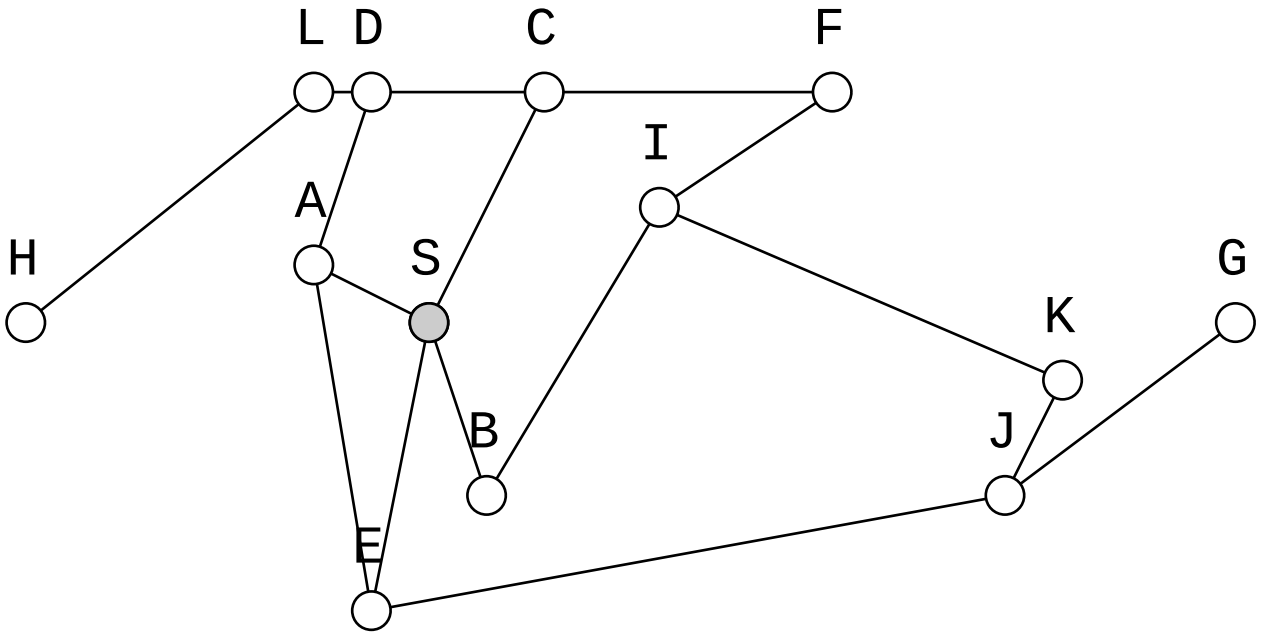
Uniform cost search

Iteration 0



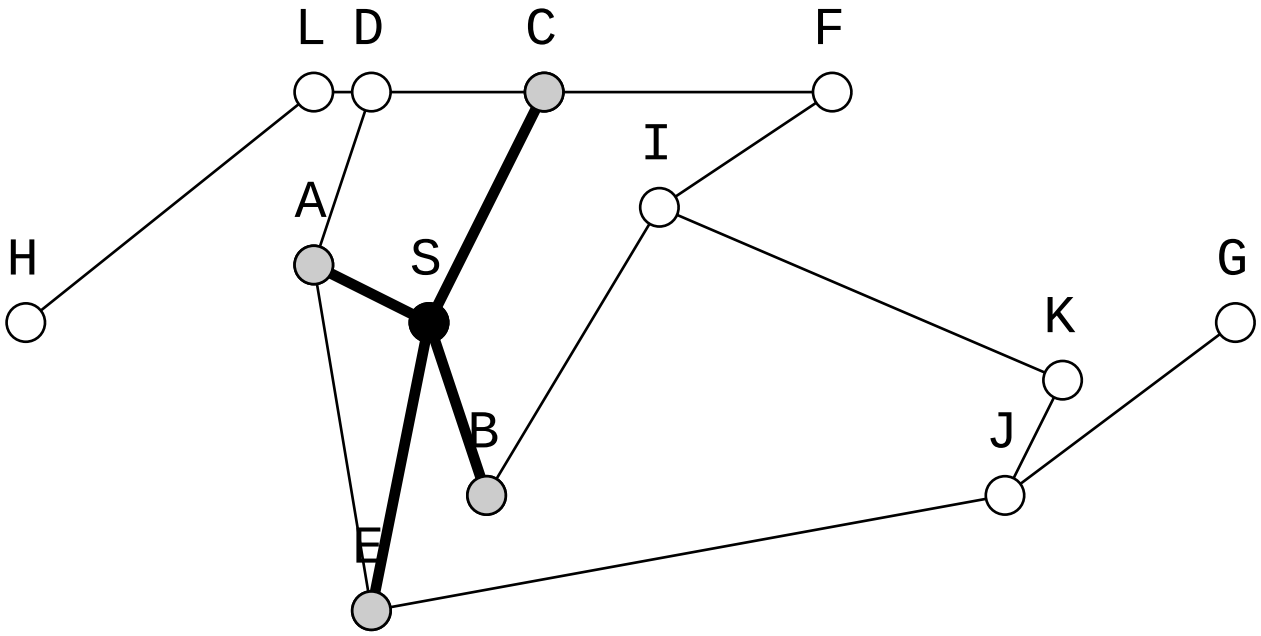

OPEN list:

  S: g= 0.0 h= 0.0 f= 0.0  <== expand

CLOSED list:

Uniform cost search

Iteration 1




OPEN list:

A: g= 2.2 h= 0.0 f= 2.2 <== expand

C: g= 4.5 h= 0.0 f= 4.5

B: g= 3.2 h= 0.0 f= 3.2

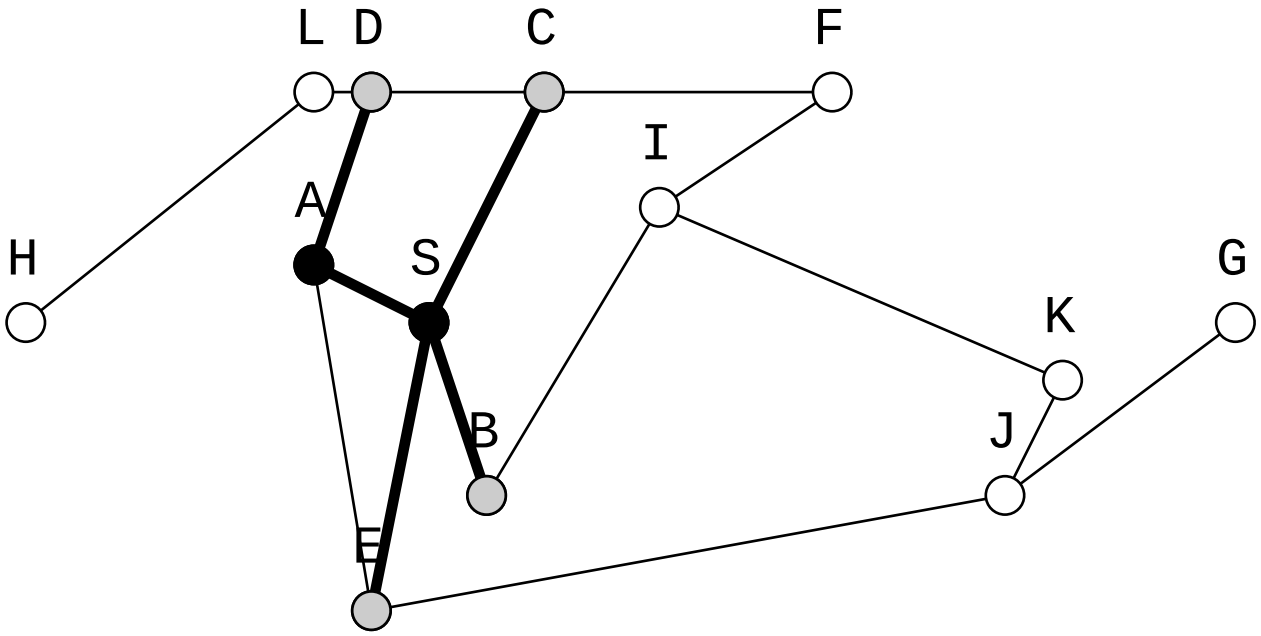
E: g= 5.1 h= 0.0 f= 5.1

CLOSED list:

S: g= 0.0 h= 0.0 f= 0.0

Uniform cost search

Iteration 2




OPEN list:

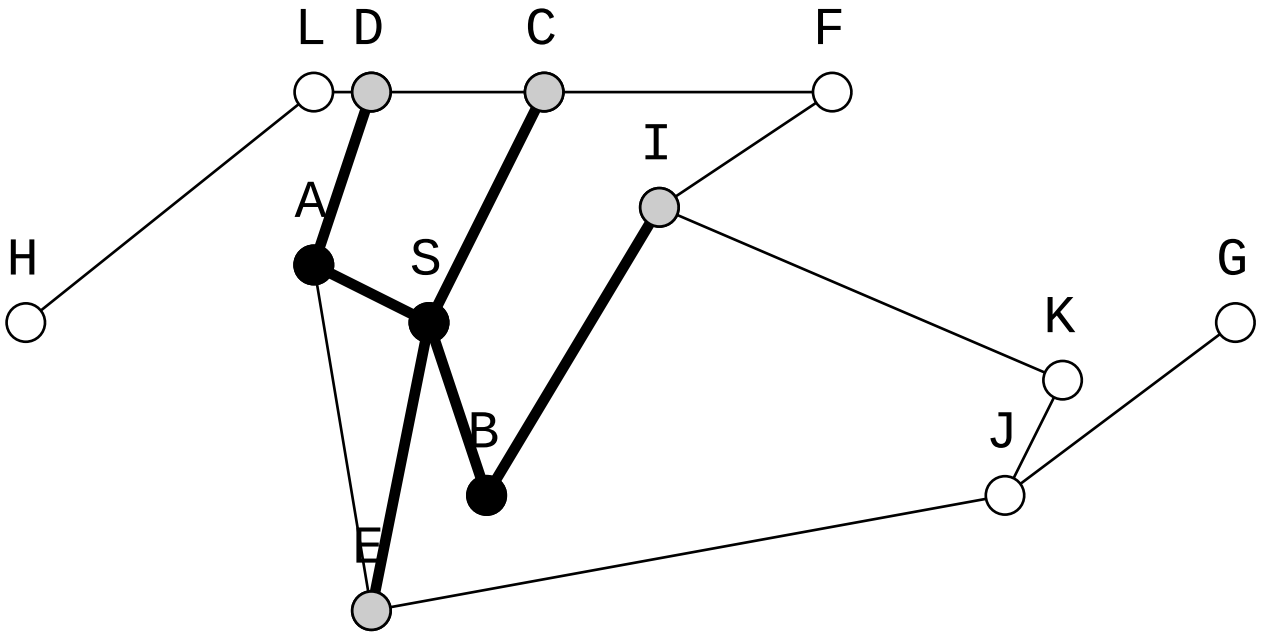
```
  D: g= 5.4 h= 0.0 f= 5.4
  C: g= 4.5 h= 0.0 f= 4.5
  B: g= 3.2 h= 0.0 f= 3.2  <== expand
  E: g= 5.1 h= 0.0 f= 5.1
```

CLOSED list:

```
  A: g= 2.2 h= 0.0 f= 2.2
  S: g= 0.0 h= 0.0 f= 0.0
```

Uniform cost search

Iteration 3




OPEN list:

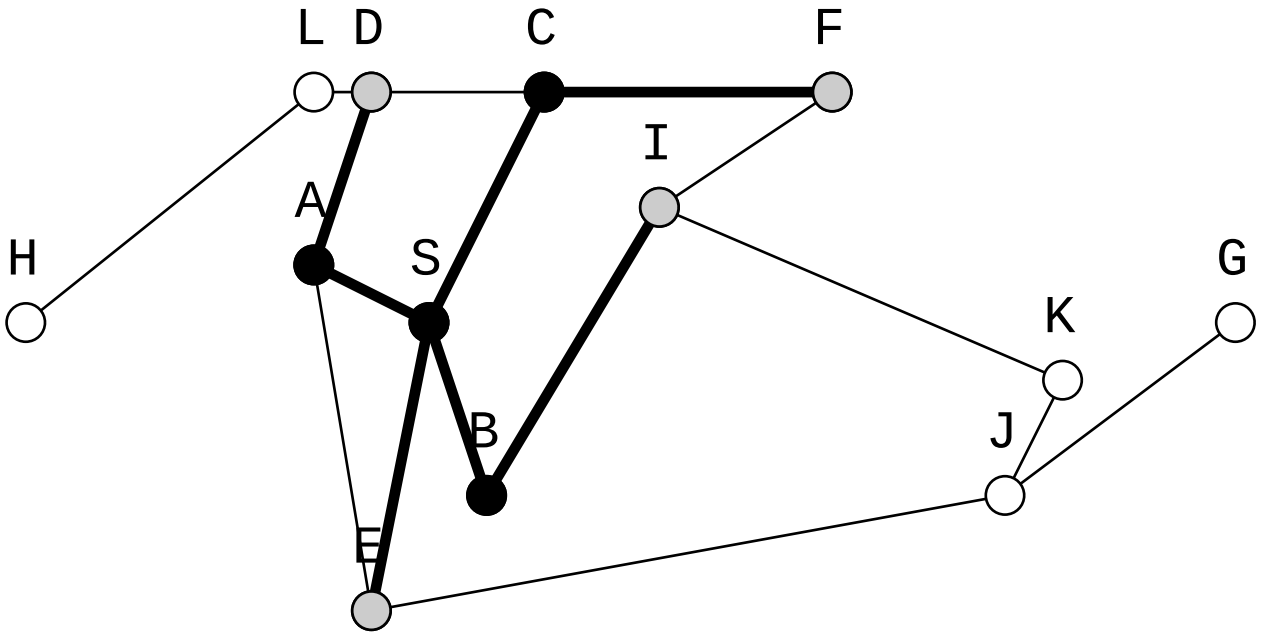
```
  I: g= 9.0 h= 0.0 f= 9.0
  D: g= 5.4 h= 0.0 f= 5.4
  C: g= 4.5 h= 0.0 f= 4.5  <== expand
  E: g= 5.1 h= 0.0 f= 5.1
```

CLOSED list:

```
  B: g= 3.2 h= 0.0 f= 3.2
  A: g= 2.2 h= 0.0 f= 2.2
  S: g= 0.0 h= 0.0 f= 0.0
```

Uniform cost search

Iteration 4




OPEN list:

F: g= 9.5 h= 0.0 f= 9.5

I: g= 9.0 h= 0.0 f= 9.0

D: g= 5.4 h= 0.0 f= 5.4

E: g= 5.1 h= 0.0 f= 5.1 <== expand

CLOSED list:

C: g= 4.5 h= 0.0 f= 4.5

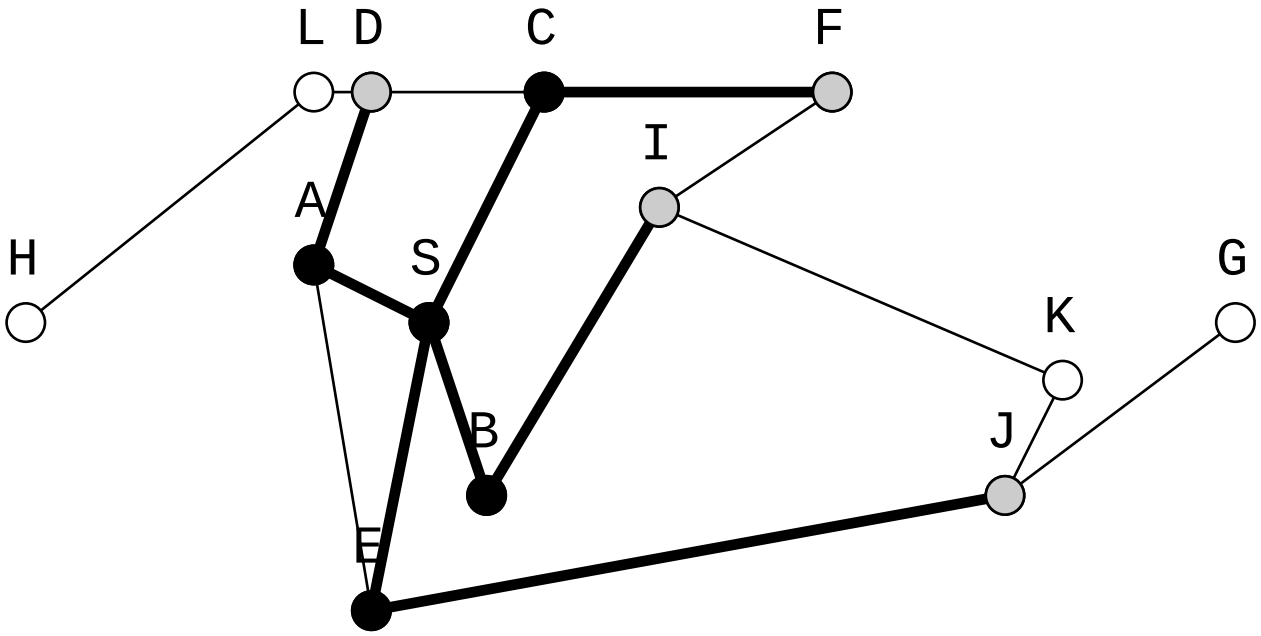
B: g= 3.2 h= 0.0 f= 3.2

A: g= 2.2 h= 0.0 f= 2.2

S: g= 0.0 h= 0.0 f= 0.0

Uniform cost search

Iteration 5




OPEN list:

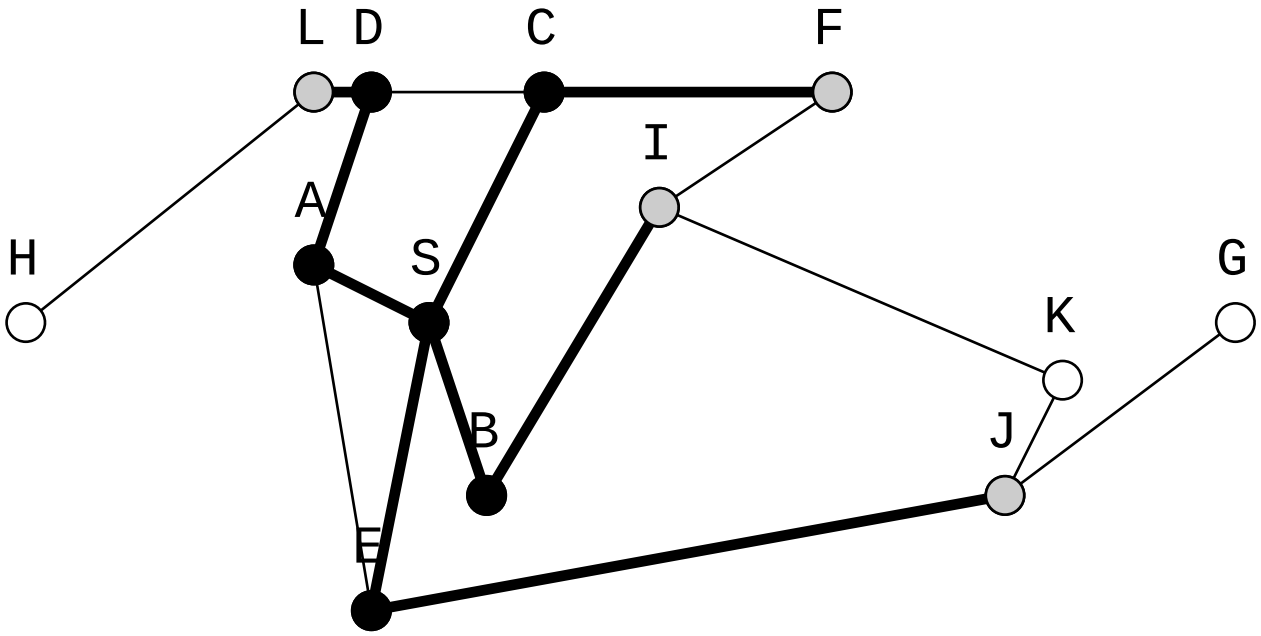
```
  J: g=16.3 h= 0.0 f=16.3
  F: g= 9.5 h= 0.0 f= 9.5
  I: g= 9.0 h= 0.0 f= 9.0
  D: g= 5.4 h= 0.0 f= 5.4  <== expand
```

CLOSED list:

```
  E: g= 5.1 h= 0.0 f= 5.1
  C: g= 4.5 h= 0.0 f= 4.5
  B: g= 3.2 h= 0.0 f= 3.2
  A: g= 2.2 h= 0.0 f= 2.2
  S: g= 0.0 h= 0.0 f= 0.0
```

Uniform cost search

Iteration 6




OPEN list:

L: g= 6.4 h= 0.0 f= 6.4 <== expand

J: g=16.3 h= 0.0 f=16.3

F: g= 9.5 h= 0.0 f= 9.5

I: g= 9.0 h= 0.0 f= 9.0

CLOSED list:

D: g= 5.4 h= 0.0 f= 5.4

E: g= 5.1 h= 0.0 f= 5.1

C: g= 4.5 h= 0.0 f= 4.5

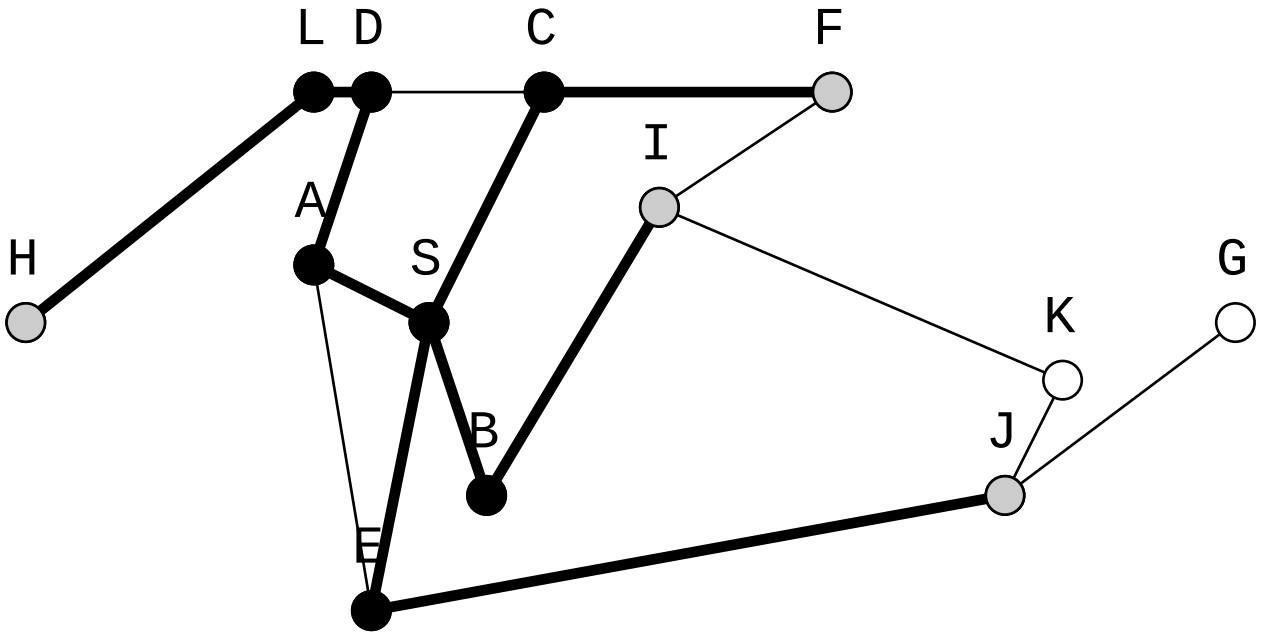
B: g= 3.2 h= 0.0 f= 3.2

A: g= 2.2 h= 0.0 f= 2.2

S: g= 0.0 h= 0.0 f= 0.0

Uniform cost search

Iteration 7




OPEN list:

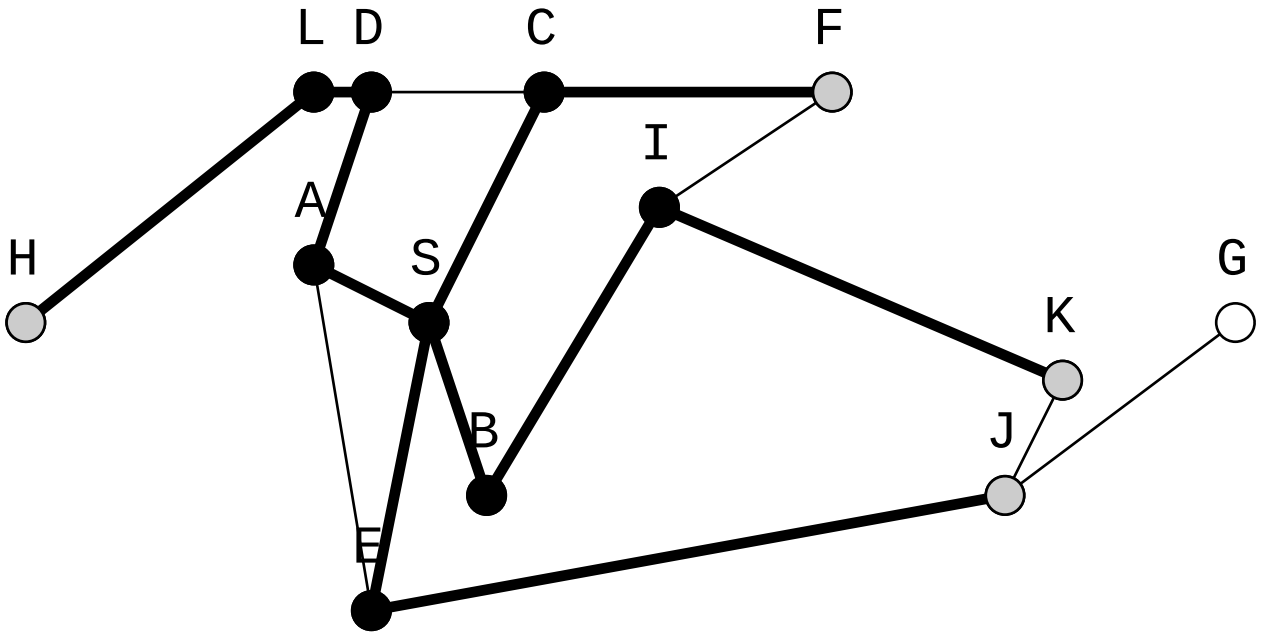
```
  H: g=12.8 h= 0.0 f=12.8
  J: g=16.3 h= 0.0 f=16.3
  F: g= 9.5 h= 0.0 f= 9.5
  I: g= 9.0 h= 0.0 f= 9.0  <== expand
```

CLOSED list:

```
  L: g= 6.4 h= 0.0 f= 6.4
  D: g= 5.4 h= 0.0 f= 5.4
  E: g= 5.1 h= 0.0 f= 5.1
  C: g= 4.5 h= 0.0 f= 4.5
  B: g= 3.2 h= 0.0 f= 3.2
  A: g= 2.2 h= 0.0 f= 2.2
  S: g= 0.0 h= 0.0 f= 0.0
```

Uniform cost search

Iteration 8




OPEN list:

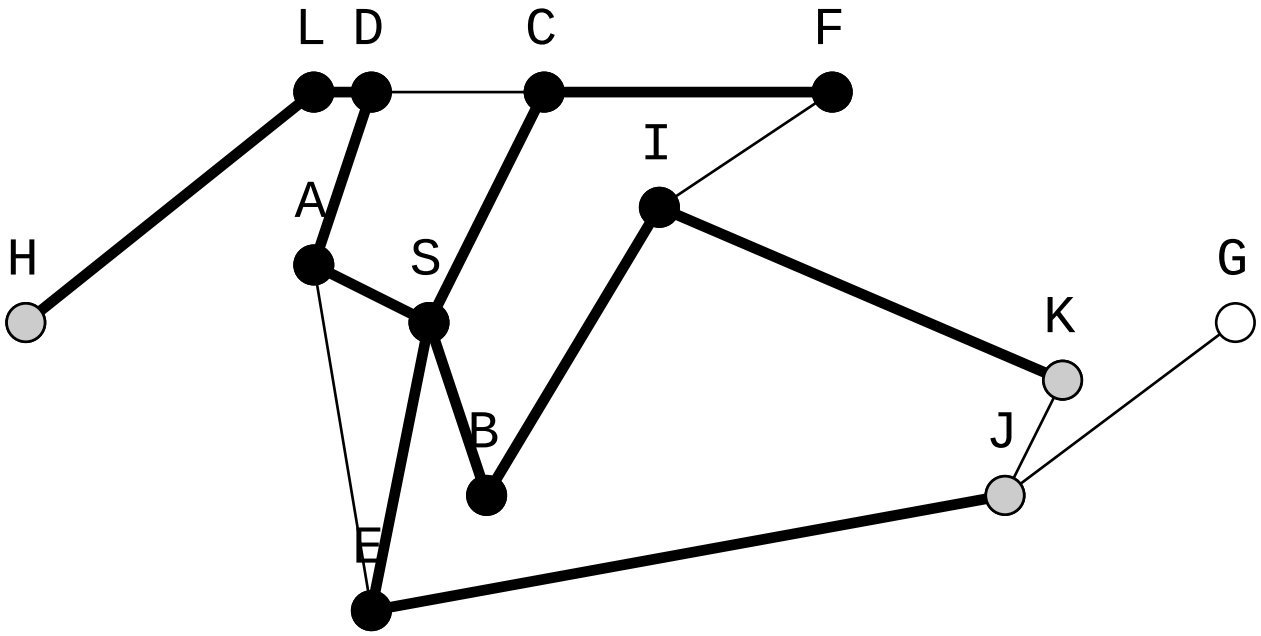
```
  K: g=16.6 h= 0.0 f=16.6
  H: g=12.8 h= 0.0 f=12.8
  J: g=16.3 h= 0.0 f=16.3
  F: g= 9.5 h= 0.0 f= 9.5  <== expand
```

CLOSED list:

```
  I: g= 9.0 h= 0.0 f= 9.0
  L: g= 6.4 h= 0.0 f= 6.4
  D: g= 5.4 h= 0.0 f= 5.4
  E: g= 5.1 h= 0.0 f= 5.1
  C: g= 4.5 h= 0.0 f= 4.5
  B: g= 3.2 h= 0.0 f= 3.2
  A: g= 2.2 h= 0.0 f= 2.2
  S: g= 0.0 h= 0.0 f= 0.0
```

Uniform cost search

Iteration 9




OPEN list:

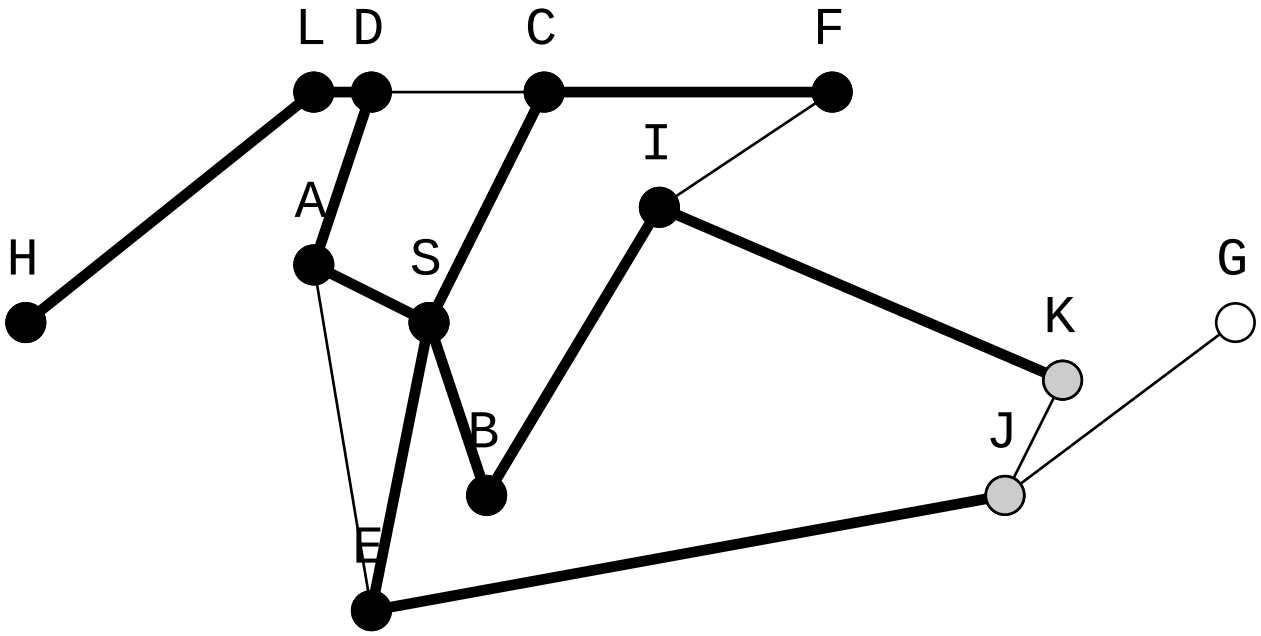
```
  K: g=16.6 h= 0.0 f=16.6
  H: g=12.8 h= 0.0 f=12.8  <== expand
  J: g=16.3 h= 0.0 f=16.3
```

CLOSED list:

```
  F: g= 9.5 h= 0.0 f= 9.5
  I: g= 9.0 h= 0.0 f= 9.0
  L: g= 6.4 h= 0.0 f= 6.4
  D: g= 5.4 h= 0.0 f= 5.4
  E: g= 5.1 h= 0.0 f= 5.1
  C: g= 4.5 h= 0.0 f= 4.5
  B: g= 3.2 h= 0.0 f= 3.2
  A: g= 2.2 h= 0.0 f= 2.2
  S: g= 0.0 h= 0.0 f= 0.0
```

Uniform cost search

Iteration 10




OPEN list:

K: g=16.6 h= 0.0 f=16.6

J: g=16.3 h= 0.0 f=16.3 <== expand

CLOSED list:

H: g=12.8 h= 0.0 f=12.8

F: g= 9.5 h= 0.0 f= 9.5

I: g= 9.0 h= 0.0 f= 9.0

L: g= 6.4 h= 0.0 f= 6.4

D: g= 5.4 h= 0.0 f= 5.4

E: g= 5.1 h= 0.0 f= 5.1

C: g= 4.5 h= 0.0 f= 4.5

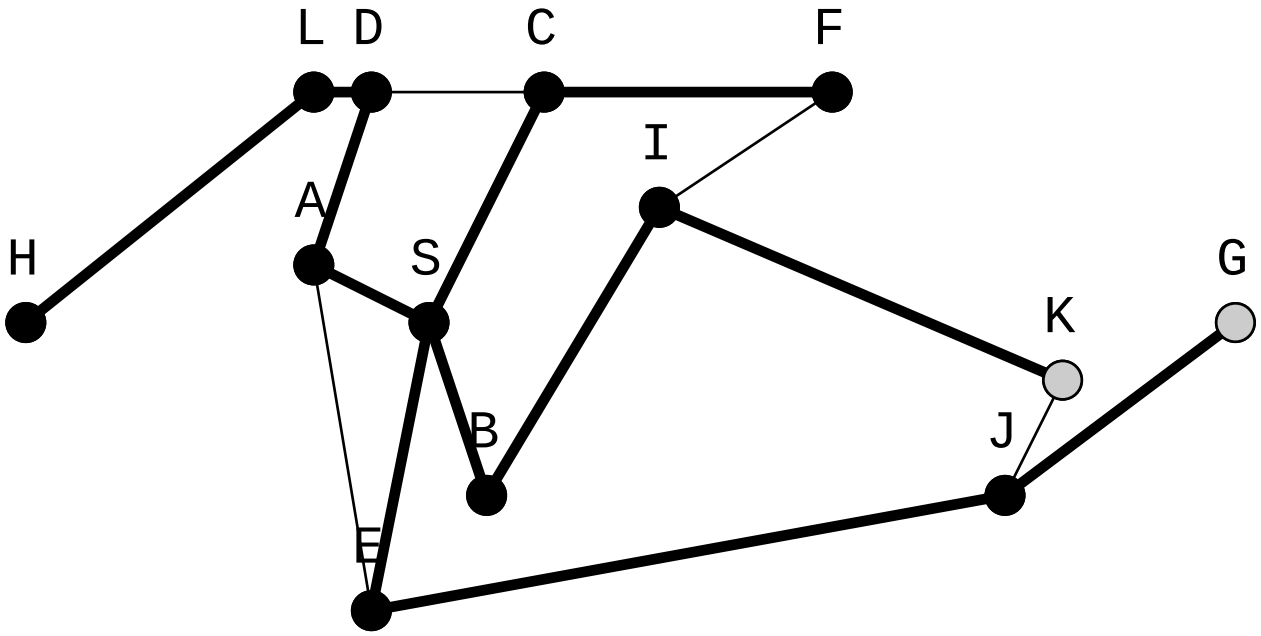
B: g= 3.2 h= 0.0 f= 3.2

A: g= 2.2 h= 0.0 f= 2.2

S: g= 0.0 h= 0.0 f= 0.0

Uniform cost search

Iteration 11




OPEN list:

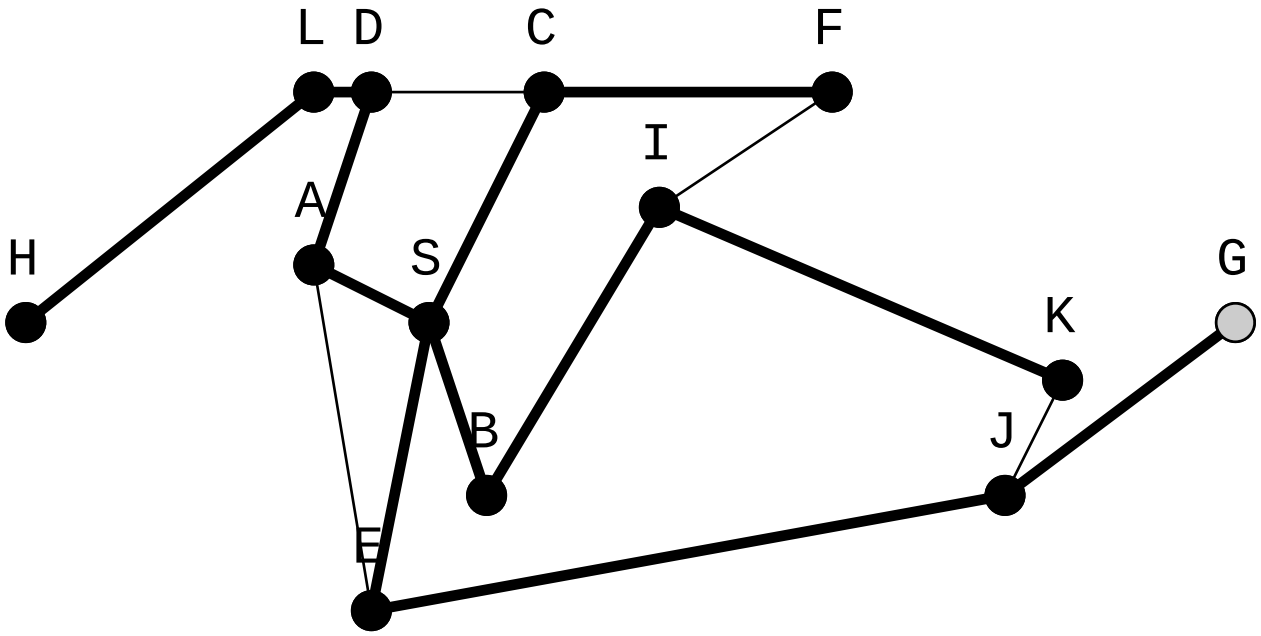
```
  G: g=21.3 h= 0.0 f=21.3
  K: g=16.6 h= 0.0 f=16.6  <== expand
```

CLOSED list:

```
  J: g=16.3 h= 0.0 f=16.3
  H: g=12.8 h= 0.0 f=12.8
  F: g= 9.5 h= 0.0 f= 9.5
  I: g= 9.0 h= 0.0 f= 9.0
  L: g= 6.4 h= 0.0 f= 6.4
  D: g= 5.4 h= 0.0 f= 5.4
  E: g= 5.1 h= 0.0 f= 5.1
  C: g= 4.5 h= 0.0 f= 4.5
  B: g= 3.2 h= 0.0 f= 3.2
  A: g= 2.2 h= 0.0 f= 2.2
  S: g= 0.0 h= 0.0 f= 0.0
```

Uniform cost search

Iteration 12




OPEN list:

```
  G: g=21.3 h= 0.0 f=21.3  <== expand
```

CLOSED list:

```
  K: g=16.6 h= 0.0 f=16.6
  J: g=16.3 h= 0.0 f=16.3
  H: g=12.8 h= 0.0 f=12.8
  F: g= 9.5 h= 0.0 f= 9.5
  I: g= 9.0 h= 0.0 f= 9.0
  L: g= 6.4 h= 0.0 f= 6.4
  D: g= 5.4 h= 0.0 f= 5.4
  E: g= 5.1 h= 0.0 f= 5.1
  C: g= 4.5 h= 0.0 f= 4.5
  B: g= 3.2 h= 0.0 f= 3.2
  A: g= 2.2 h= 0.0 f= 2.2
  S: g= 0.0 h= 0.0 f= 0.0
```