

Dijkstar:

Nodes Expanded. Frontier.

	Frontier
S	$\{A=1, D=3, B=4, C=5\}$
X A	$\{D=3, B=4, C=5\}$
X B D	$\{B=4, C=5, F=6\}$
X B	$\{C=5, F=6, G=10\}$
C	$\{F=6, E=8, G=10\}$
X F	$\{E=8, G=10\}$
E	$\{G=9\}$
G	$\{9\}$

Path is  $S \rightarrow C \rightarrow E \rightarrow G$

Total nodes = 8 nodes.

A search:

Node Expanded Frontier

	Frontier
S	$\{B=4+5, C=5+4, D=3+10, A=\infty+1\}$
B	$\{G=6+10=16, C=9, D=13, A=\infty+1\}$
G	$\{C=9, D=13, A=\infty+1\}$

The path is  $S \rightarrow B \rightarrow G$ .

Total nodes expanded = 3 nodes.