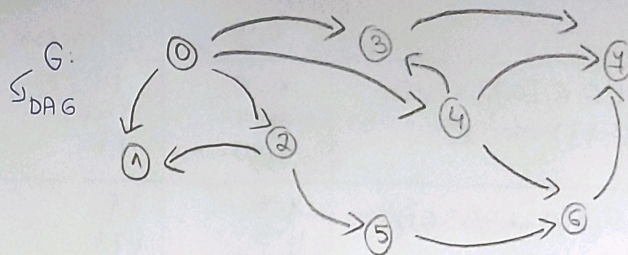


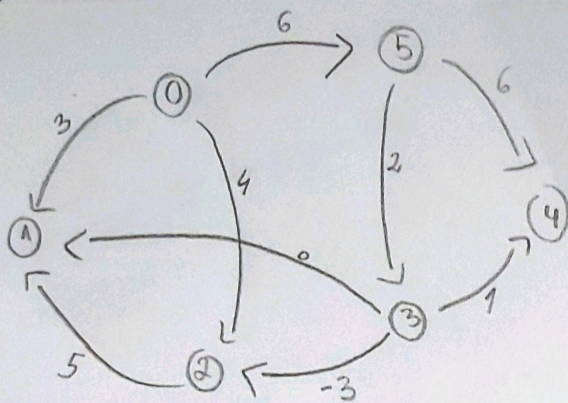
Topological sorting using DFS algorithm  
 A topological sort: 0 2 1 4 3 5 6 4



caller	x, y	inProcess	fullyProcessed	sorted	ok
initialization		{ }	{ }	[ ]	
TopoSortDFS ( G, 0, [ ], { }, { } )	x = 0	{ } { 0 } { }	{ } { 0 }	[ ] [ 0 ]	true
TopoSortDFS ( G, 1, [ 0 ], { 0 }, { } )	x = 1 y = 2	{ } { 1 }	{ 0 }	[ 0 ]	
TopoSortDFS ( G, 2, [ 0 ], { 0 }, { 1 } )	x = 2 y = 0	{ 1 } { 1, 2 } { 1 }	{ 0 } { 0, 2 }	[ 0 ] [ 0, 2 ]	true
	x = 1	{ }	{ 0, 2, 1 }	[ 0, 2, 1 ]	true
TopoSortDFS ( G, 3, [ 0, 2, 1 ], { 0, 2, 1 }, { } )	x = 3 y = 4	{ } { 3 }	{ 0, 2, 1 }	[ 0, 2, 1 ]	
TopoSortDFS ( G, 4, [ 0, 2, 1 ], { 0, 2, 1 }, { 3 } )	x = 4 y = 0	{ 3 } { 3, 4 } { 3 }	{ 0, 2, 1 } { 0, 2, 1, 4 }	[ 0, 2, 1 ] [ 0, 2, 1, 4 ]	true
	x = 3	{ }	{ 0, 2, 1, 4, 3 }	[ 0, 2, 1, 4, 3 ]	true
TopoSortDFS ( G, 5, [ 0, 2, 1, 4, 3 ], { 0, 2, 1, 4, 3 }, { } )	x = 5 y = 2	{ } { 5 } { }	{ 0, 2, 1, 4, 3 } { 0, 2, 1, 4, 3, 5 }	[ 0, 2, 1, 4, 3 ] [ 0, 2, 1, 4, 3, 5 ]	true

calls	x, y	unProcess	Fully Processed	sorted	ok
TopoSortDFS(G, 6, [0, 2, 1, 4, 3, 5], {0, 2, 1, 4, 3, 5}, { })	x = 6 y = 4 y = 5	{ } { 6 } { }	{ 0, 2, 1, 4, 3, 5 } { 0, 2, 1, 4, 3, 5, 6 }	[0, 2, 1, 4, 3, 5] [0, 2, 1, 4, 3, 5, 6]	true
TopoSortDFS(G, 7, [0, 2, 1, 4, 3, 5, 6], {0, 2, 1, 4, 3, 5, 6}, { })	x = 7 y = 3 y = 4 y = 6	{ } { 7 } { }	{ 0, 2, 1, 4, 3, 5, 6 } { 0, 2, 1, 4, 3, 5, 6, 7 }	[0, 2, 1, 4, 3, 5, 6] [0, 2, 1, 4, 3, 5, 6, 7]	true





Possible topological orders

0 5 3 2 1 4

0 5 3 2 4 1

0 5 3 4 2 1

The highest cost path from 0 to 2 is: (5 - cost)

$0 \rightarrow 5 \rightarrow 3 \rightarrow 2$

The highest cost path from 3 to 1 is: (2 - cost)

$3 \rightarrow 2 \rightarrow 1$

The highest cost path from 5 to 4 is: (6 - cost)

$5 \rightarrow 4$

There is no walk from 3 to 5: (0 - cost)