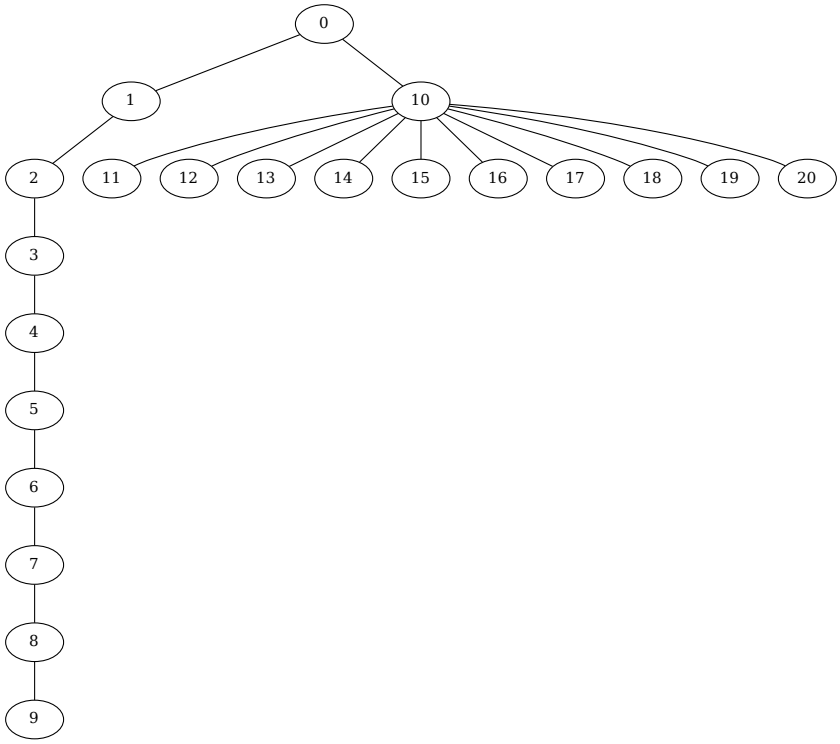
Report of running the connected cut algorithm

This is an automatically generated report which runs the algorithm on given graphs. There is a graph, its integer linear program solution, linear program solution, enhancement of the linear program and approximation result.

Graph	ILP	LP	Enhancement	Aproximation	Enh Apx
comet	2	1.6363636362e+00	1.6363636362e+00	10	2
comet-alt	4	4	4	4	4
clique	30	9.9999999999999982e+00	9.9999999999999982e+00	30	30
star	34	34	34	34	34
path	4	4	4	4	4
tree	12	10.5	12	12	12
petersen	12	2.6666666666666679e+00	2.6666666666666679e+00	12	12

comet

The source vertex is $s = 0$ and capacity is $k = 12$.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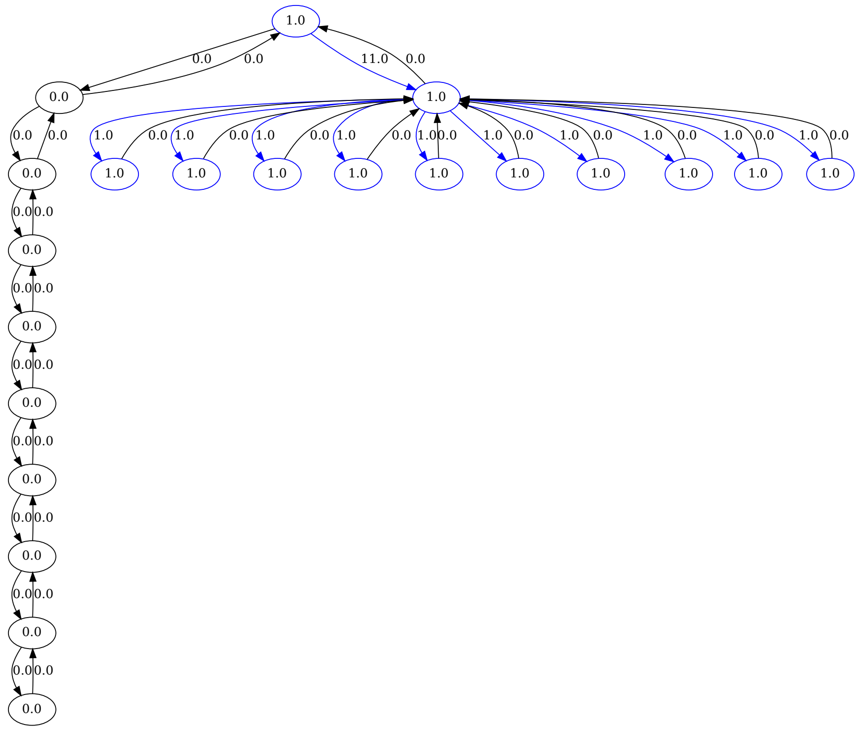
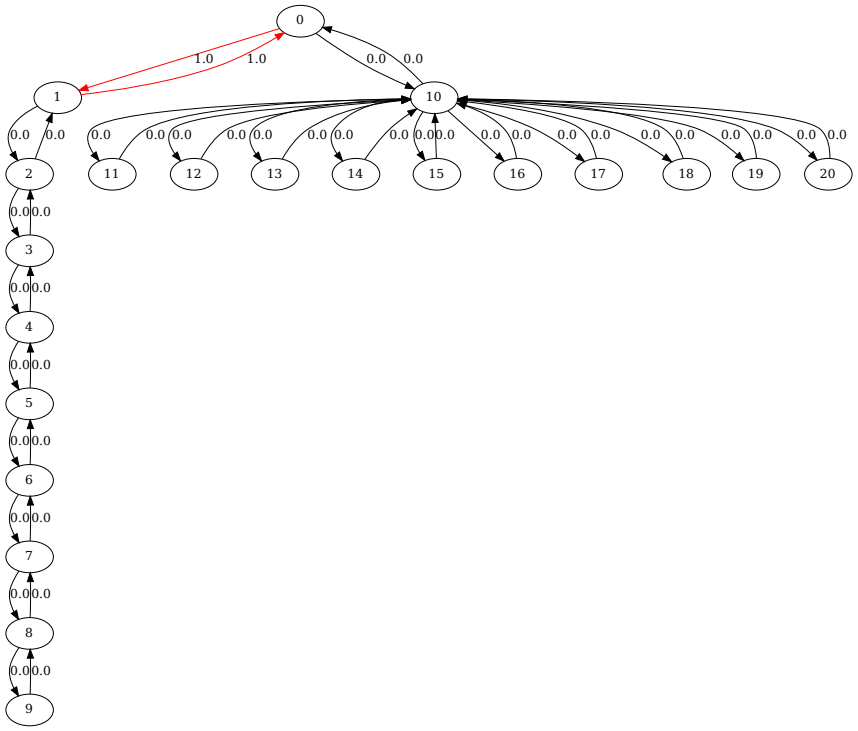
Integer linear program

Flow

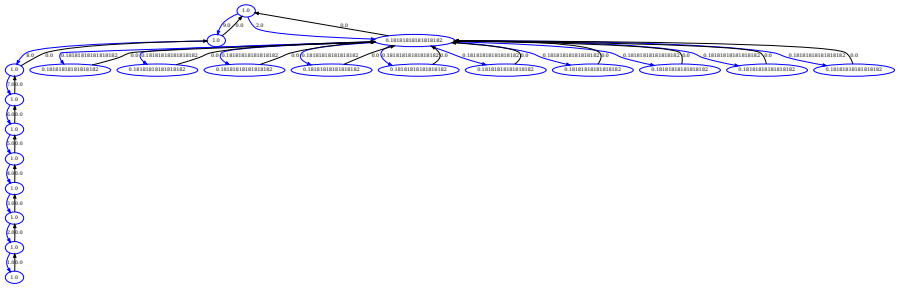


Cut

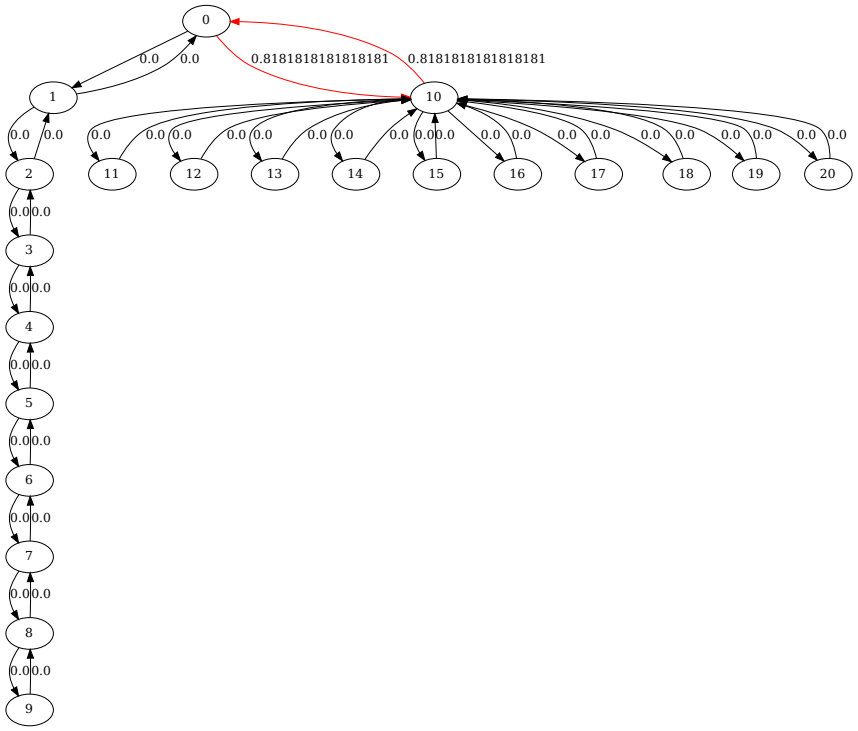


Linear program

Flow



Cut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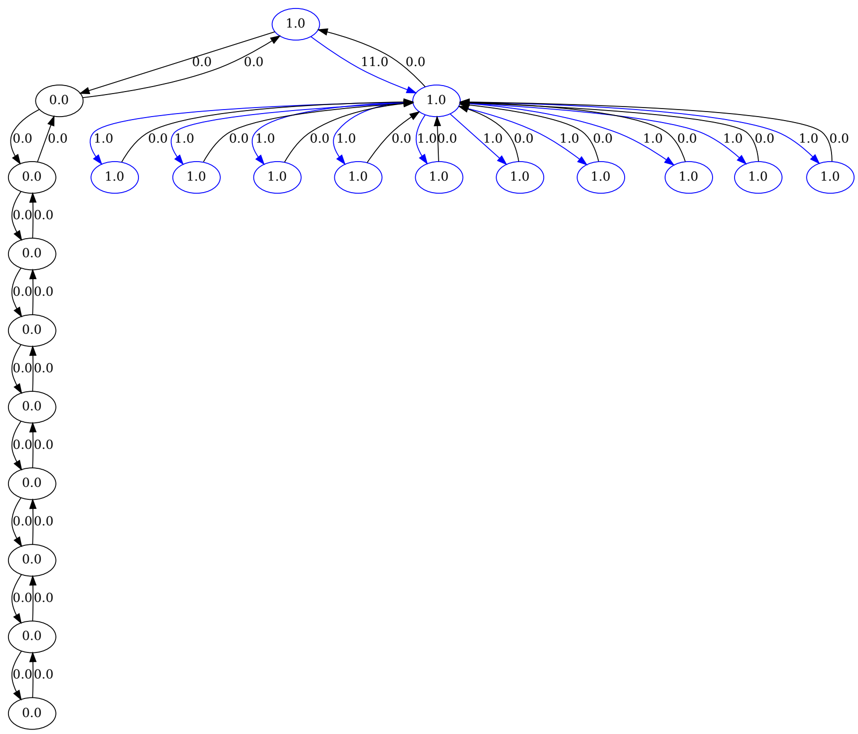
Enhancement

Flow



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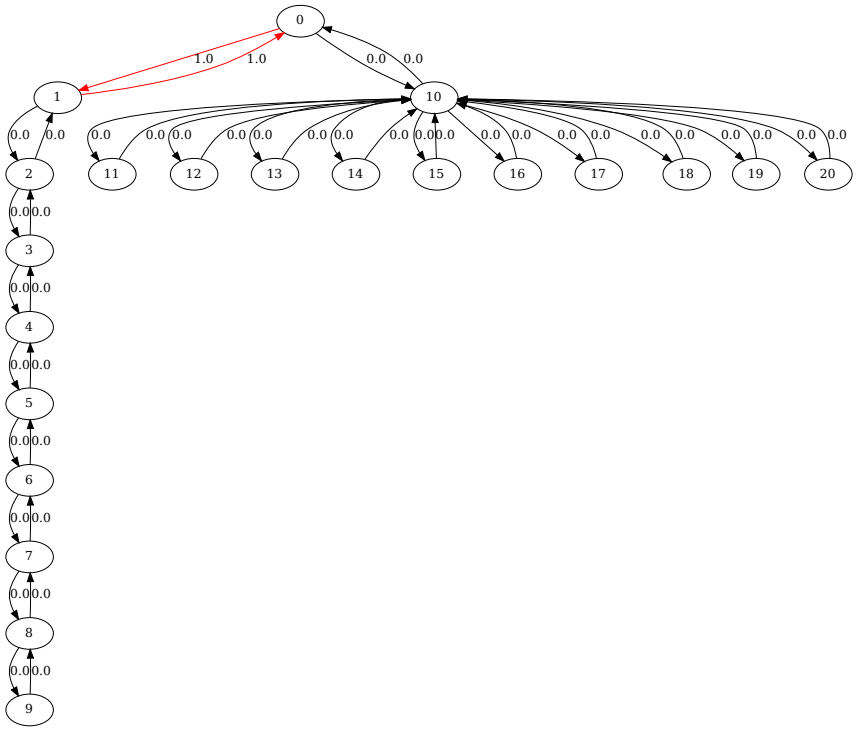
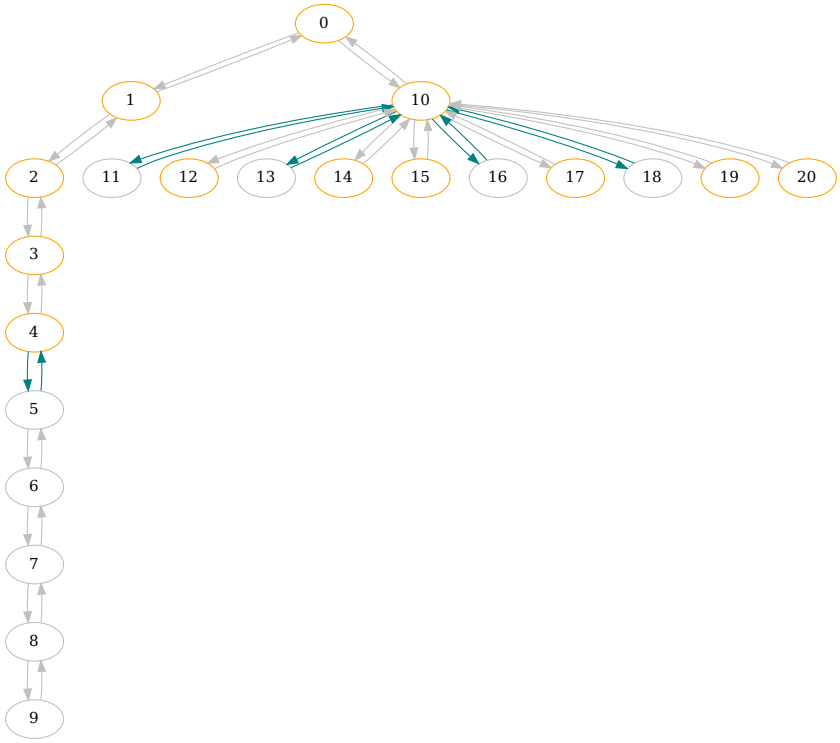
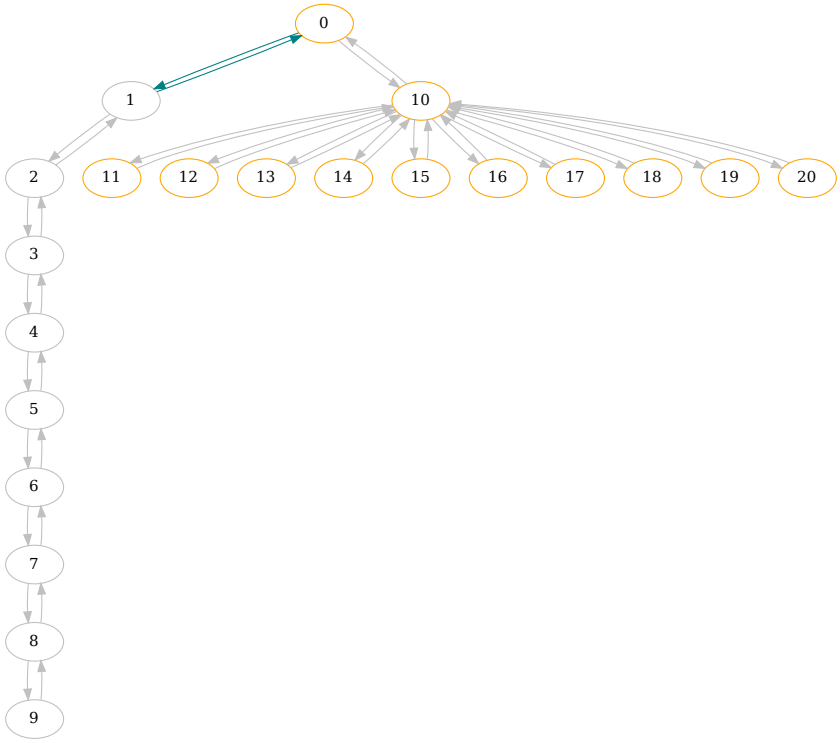


Aproximation

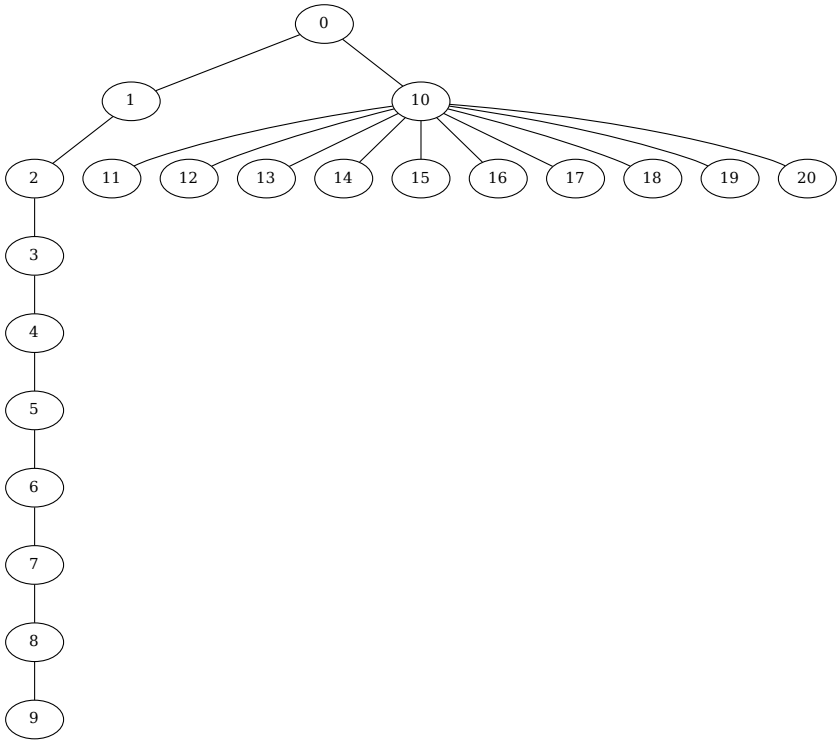


Aproximation - enhanced



comet-alt

The source vertex is $s = 12$ and capacity is $k = 10$.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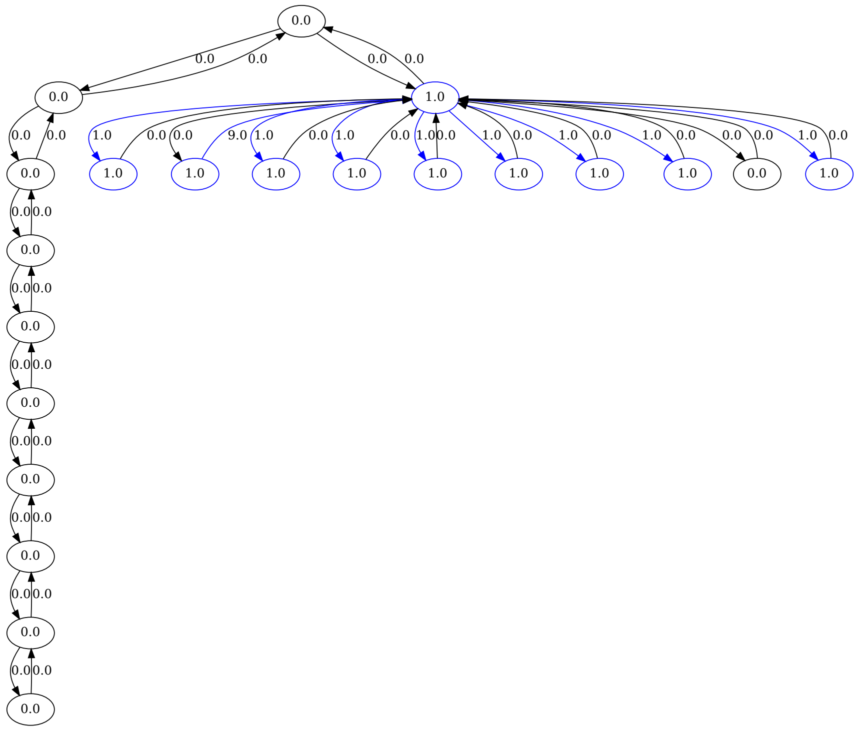
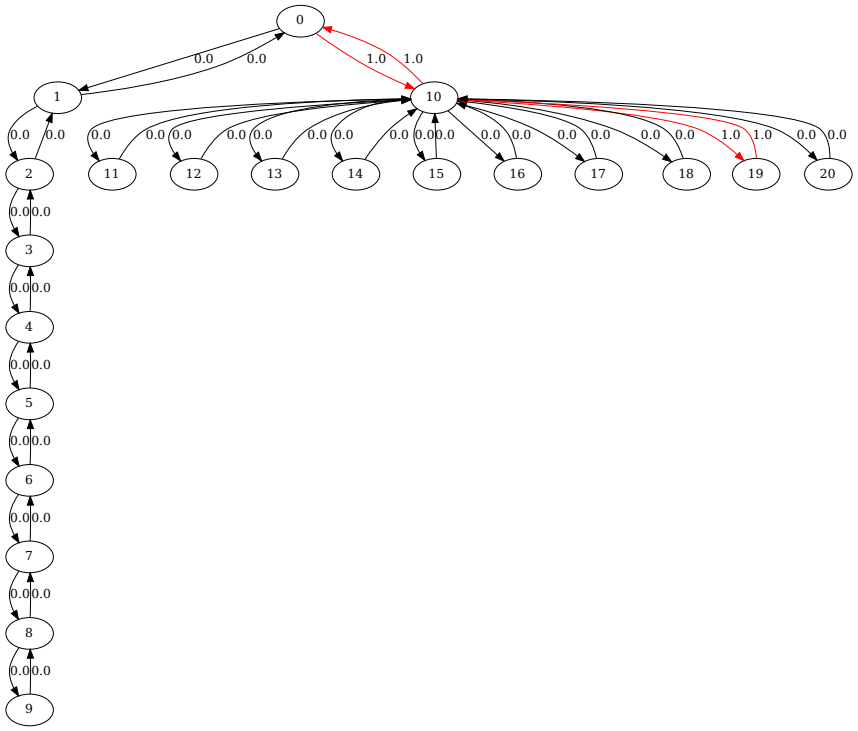
Integer linear program

Flow

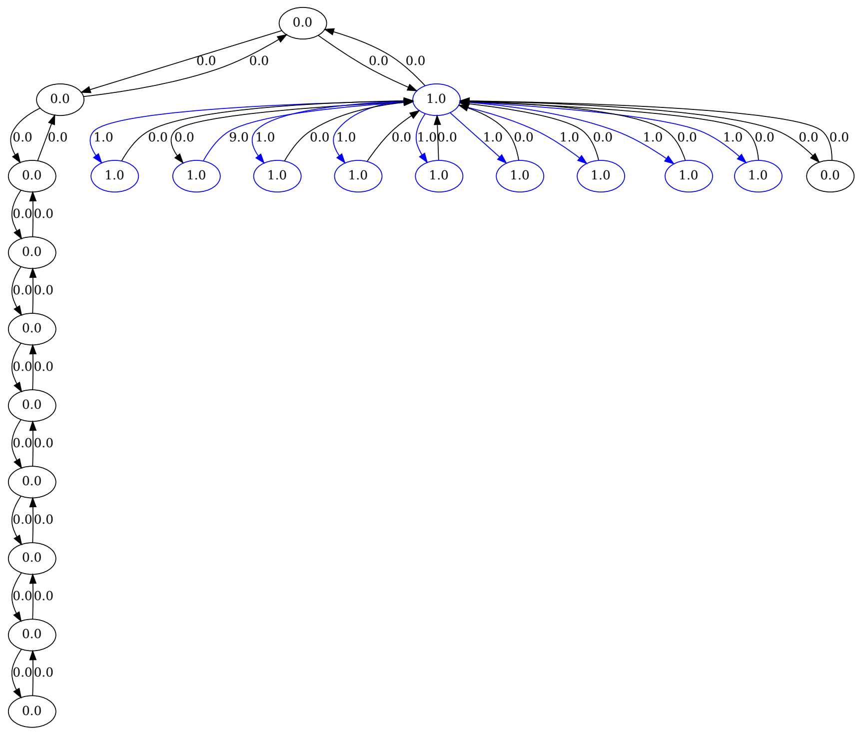


Cut



Linear program

Flow



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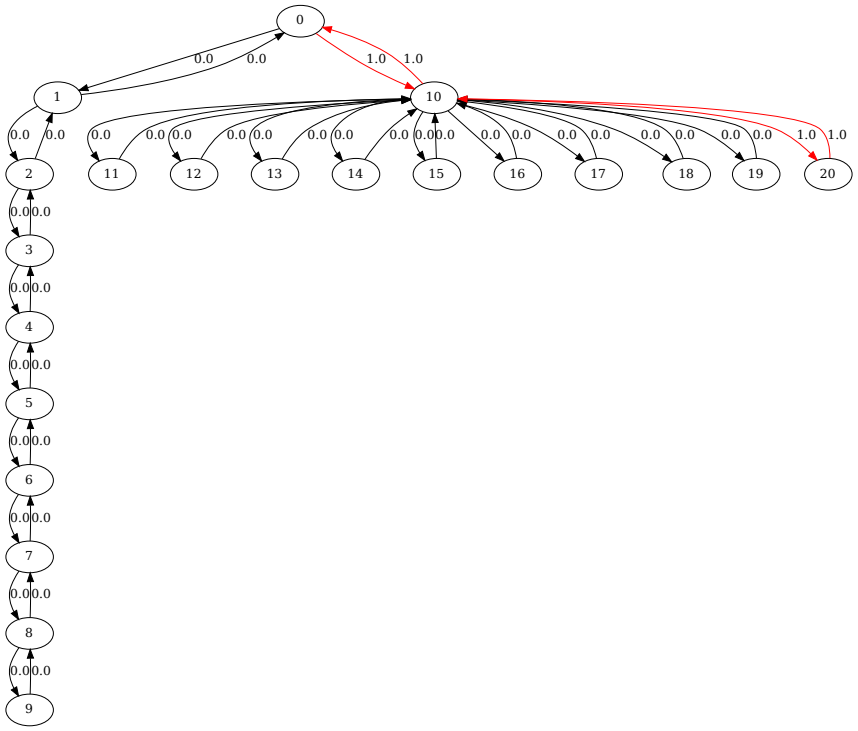
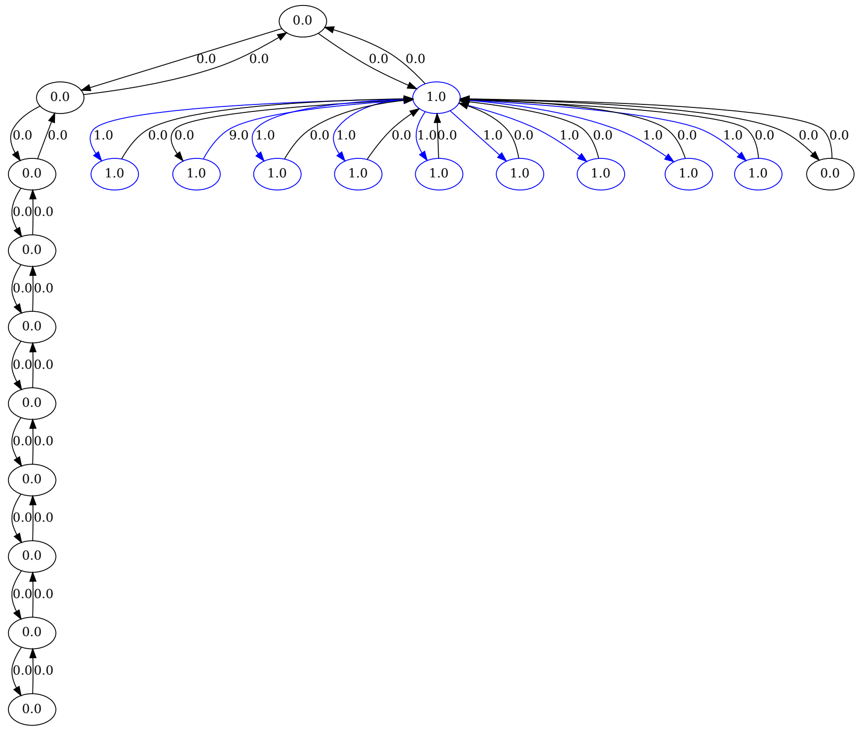


Enhancement

Flow



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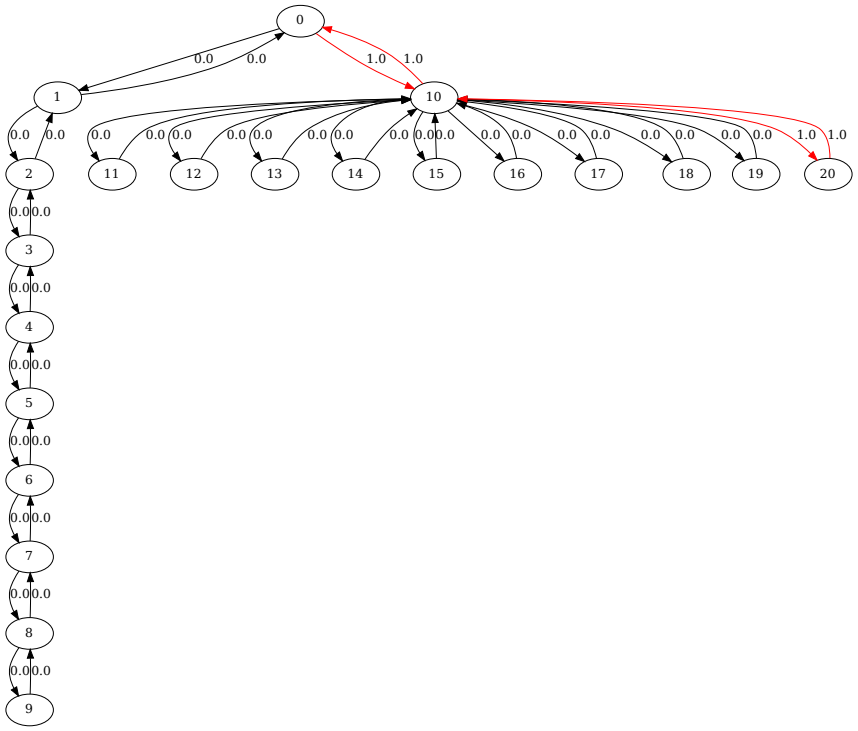
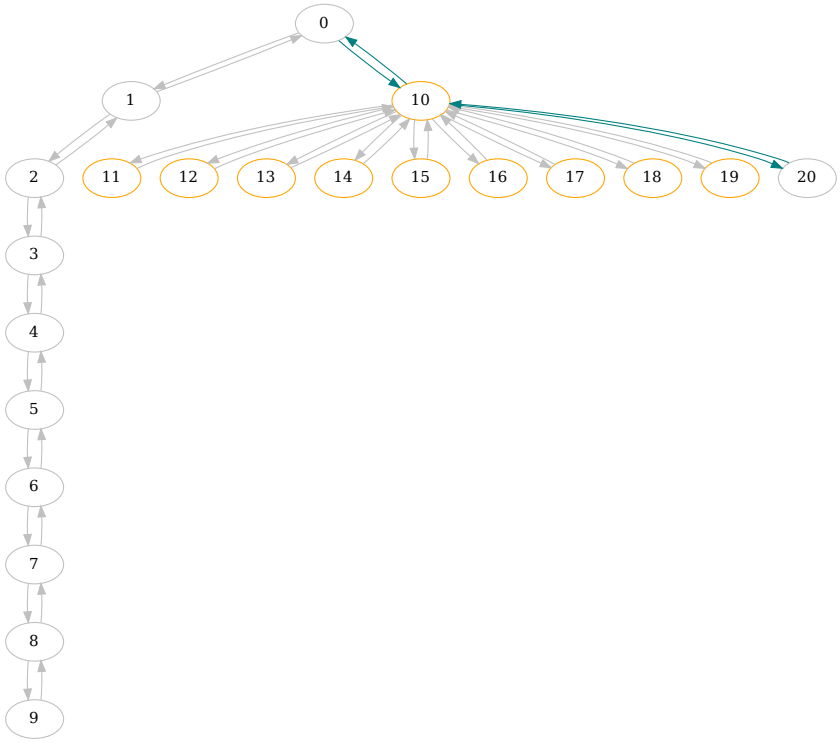
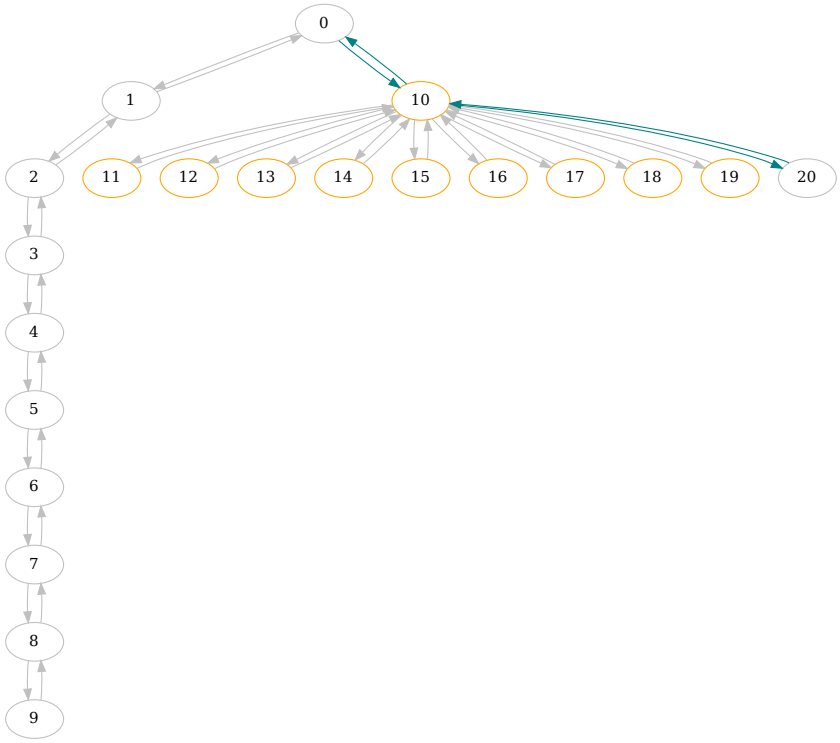


Aproximation

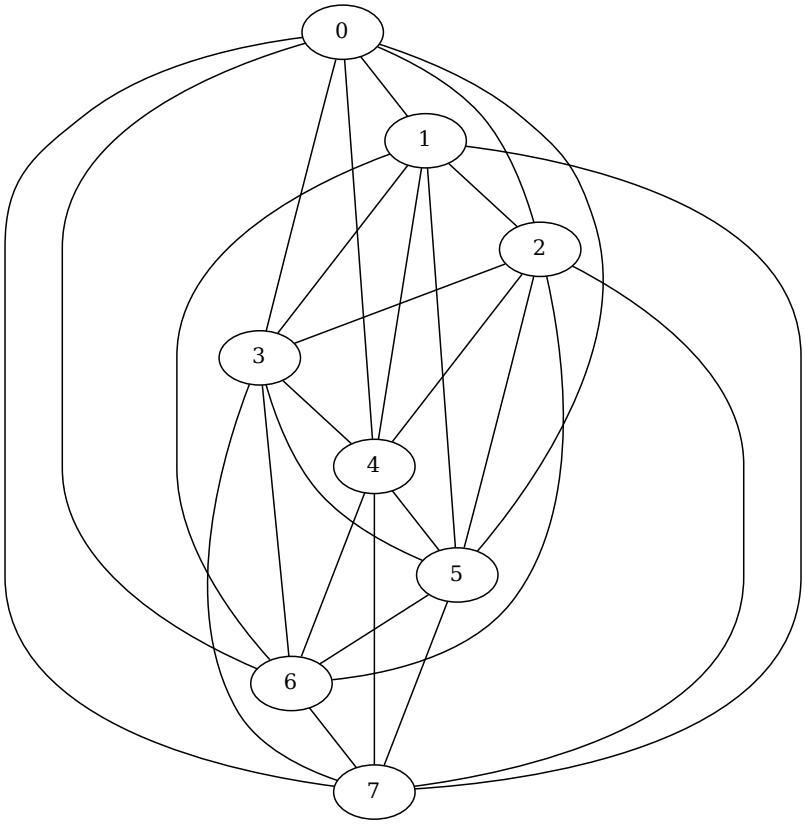


Aproximation - enhanced



clique

The source vertex is $s = 0$ and capacity is $k = 3$.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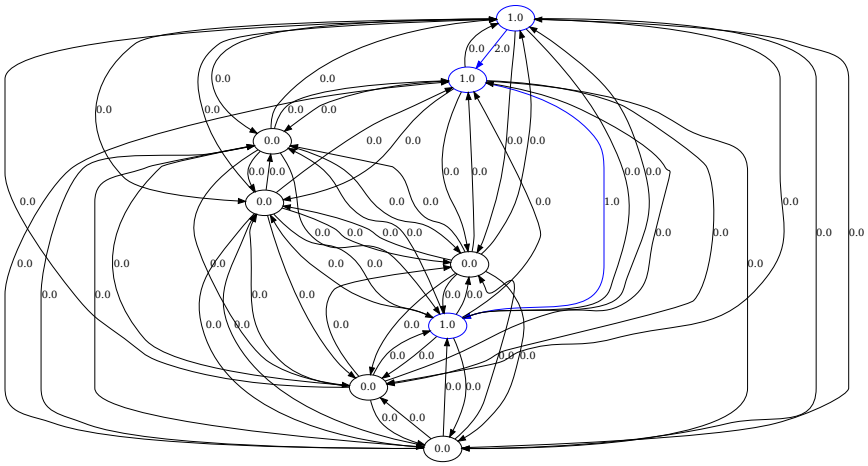
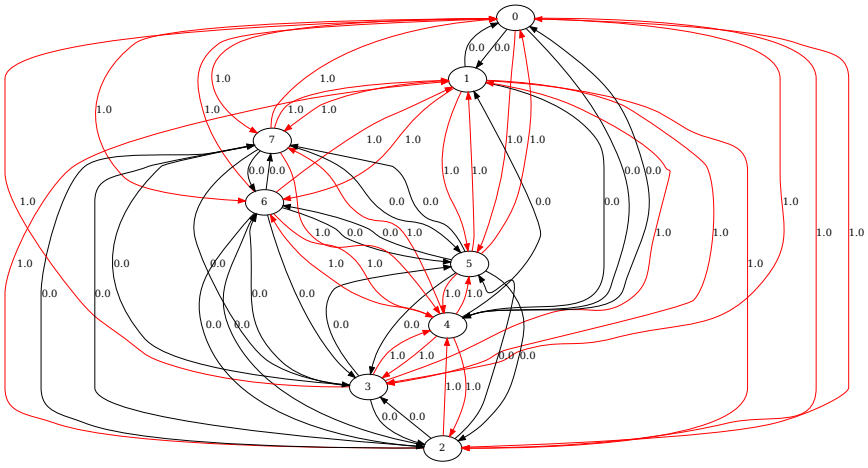
Integer linear program

Flow

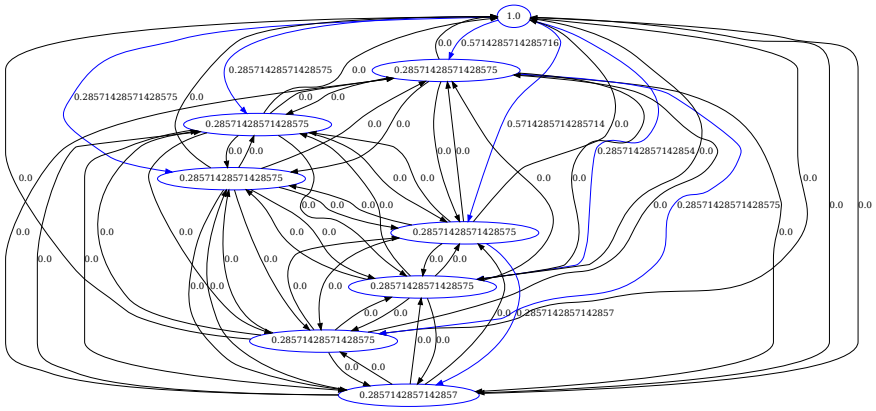


Cut



Linear program

Flow



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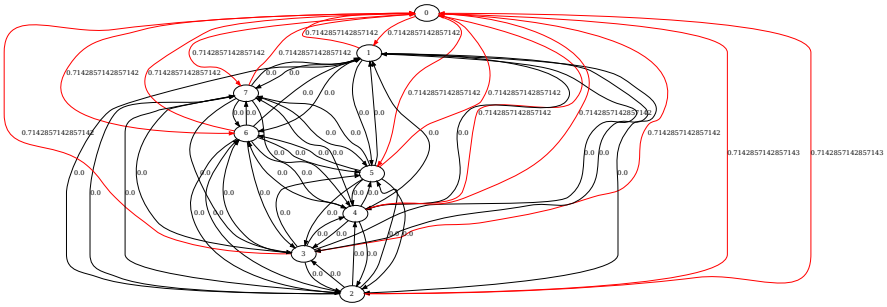
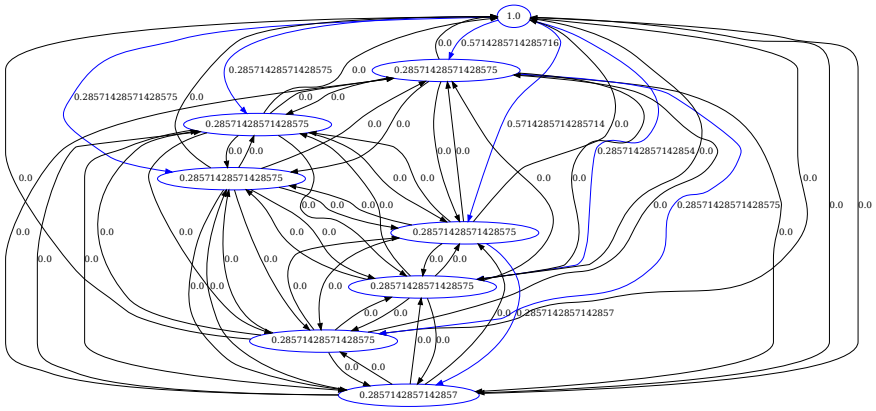
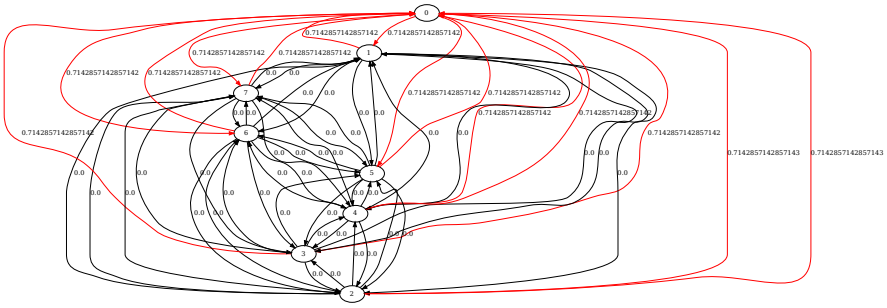


Enhancement

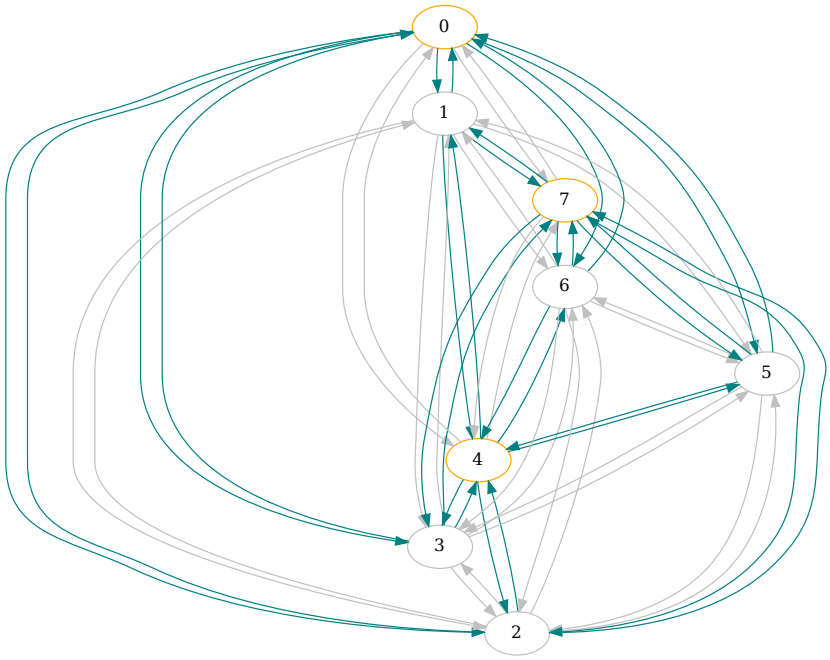
Flow



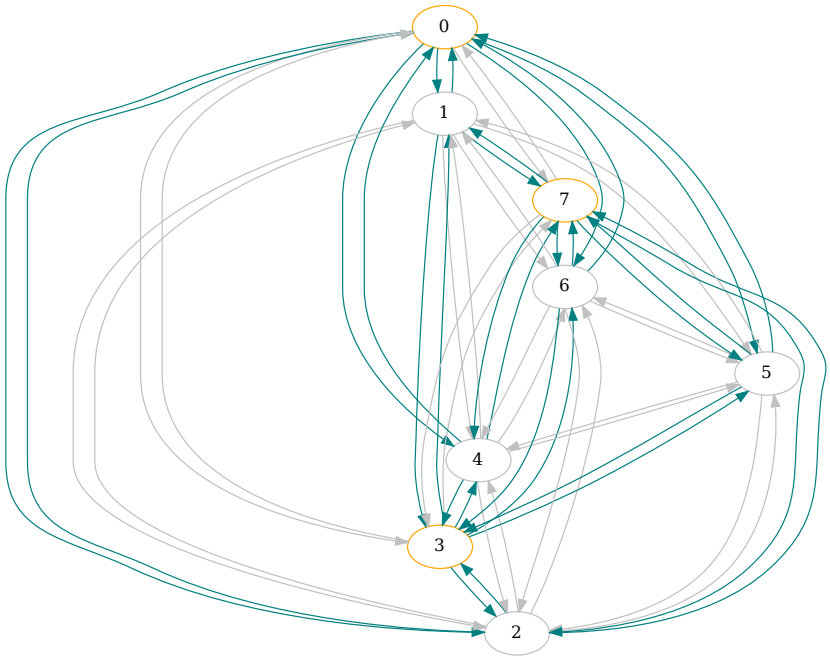
Cut



Aproximation

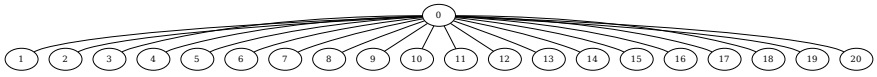


Aproximation - enhanced



star

The source vertex is $s = 1$ and capacity is $k = 4$.



Integer linear program

Flow

Cut

Linear program

Flow

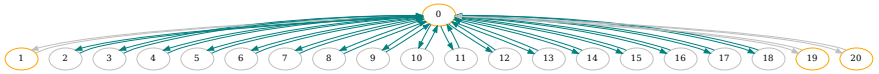
Cut

Enhancement

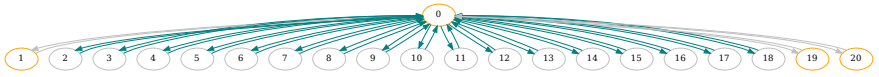
Flow

Cut

Aproximation

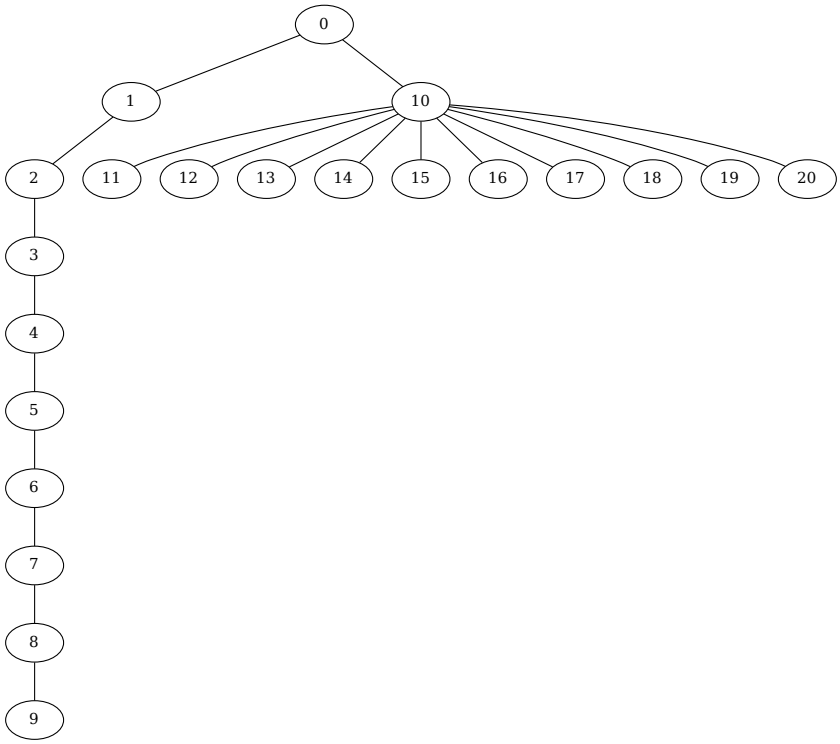


Aproximation - enhanced



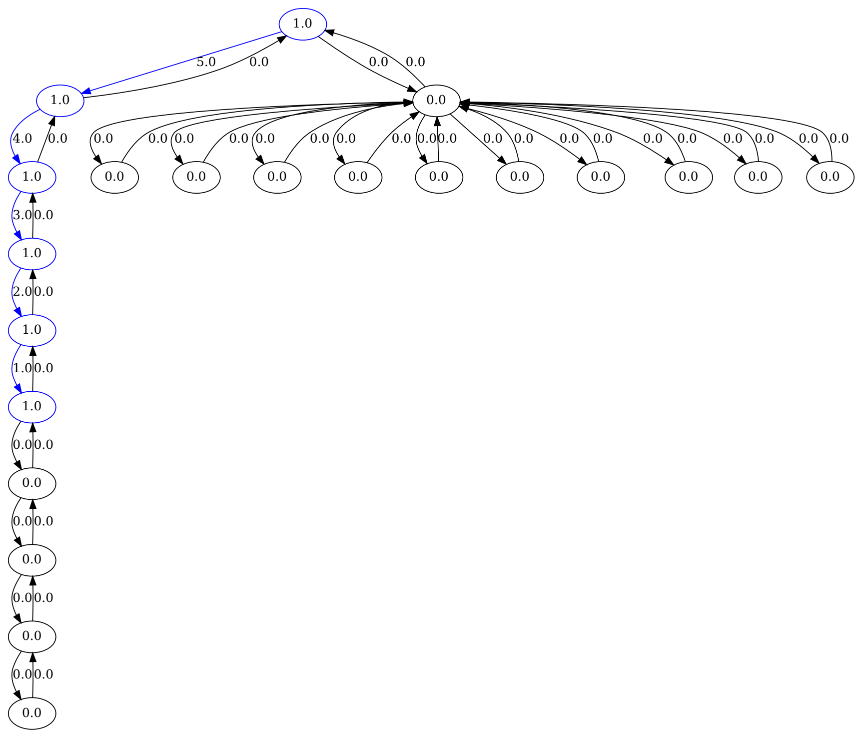
path

The source vertex is $s = 0$ and capacity is $k = 6$.

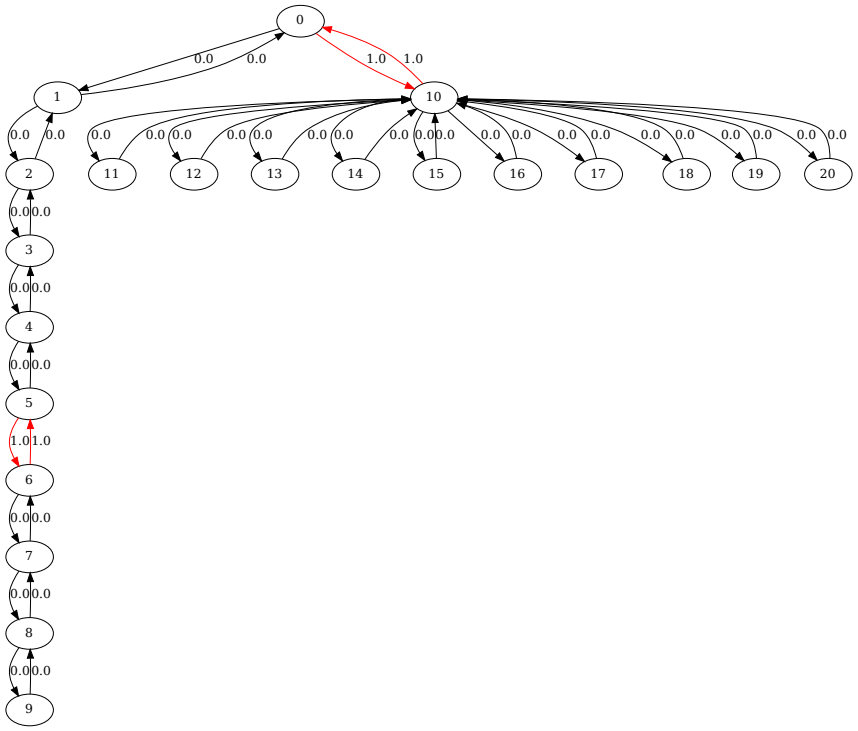


Integer linear program

Flow

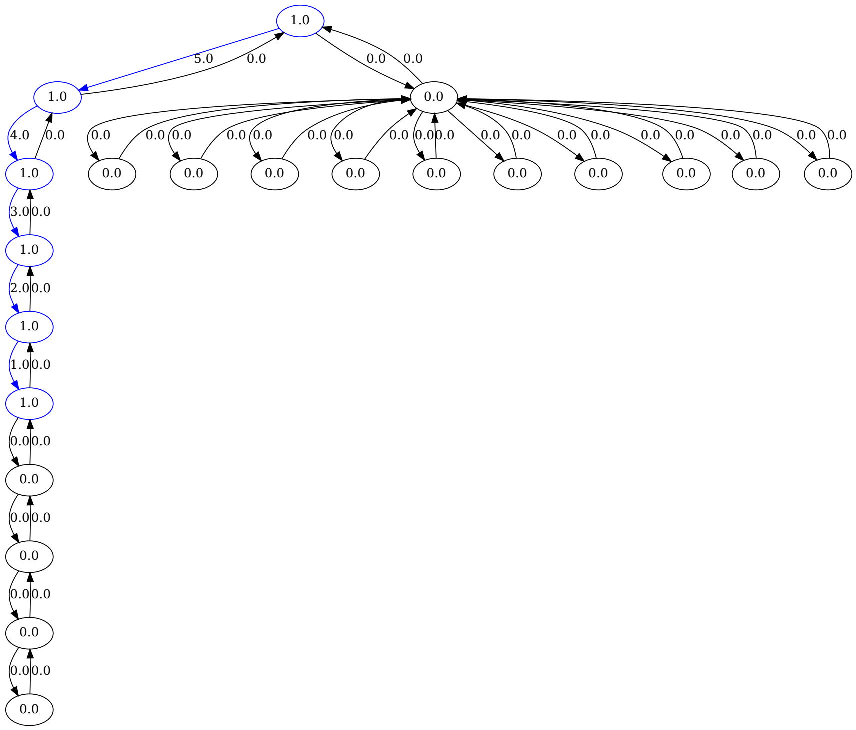


Cut

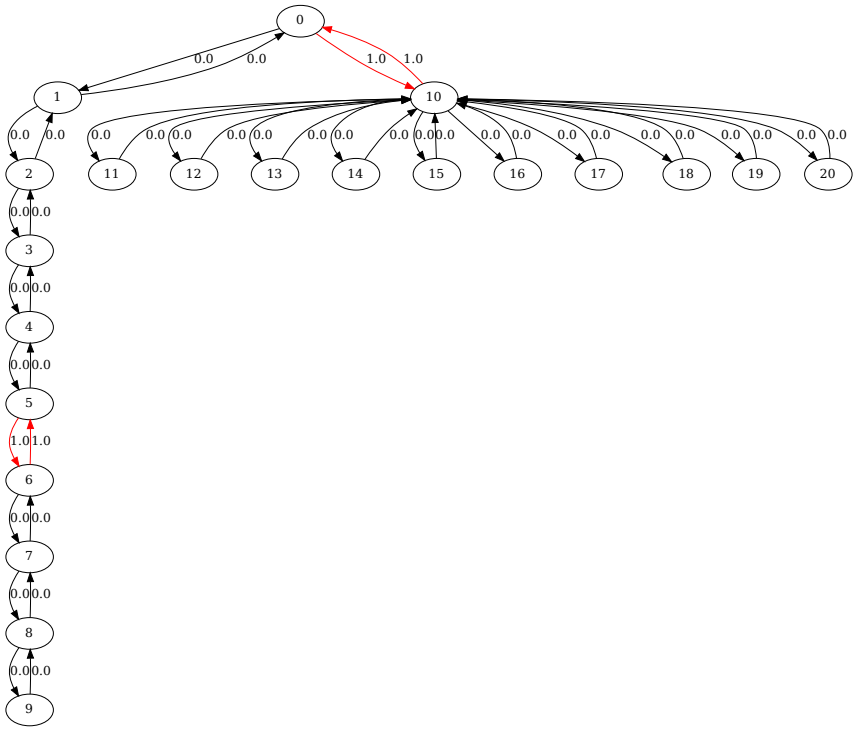


Linear program

Flow

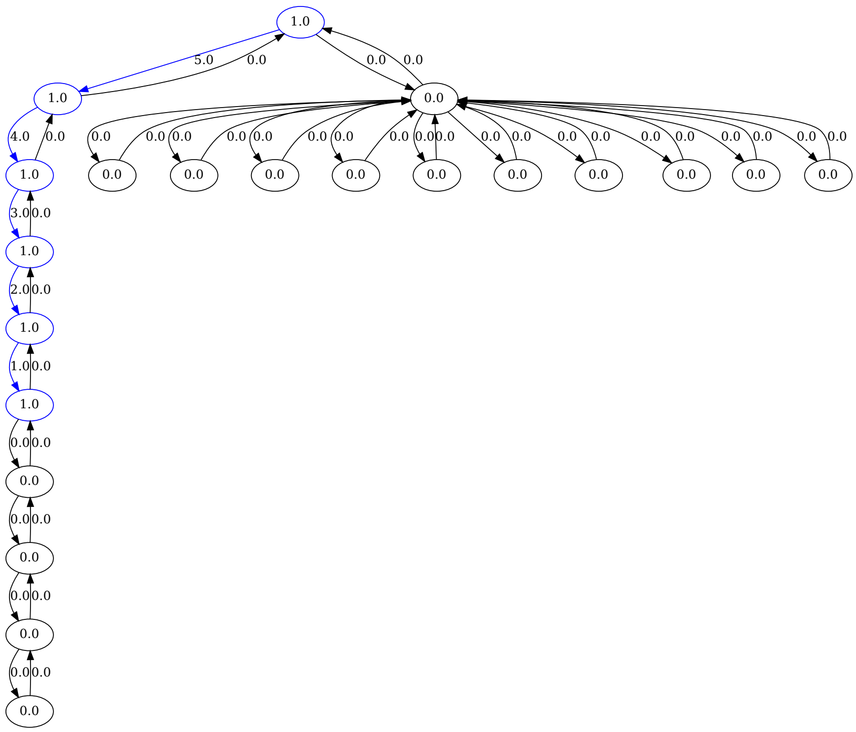


Cut

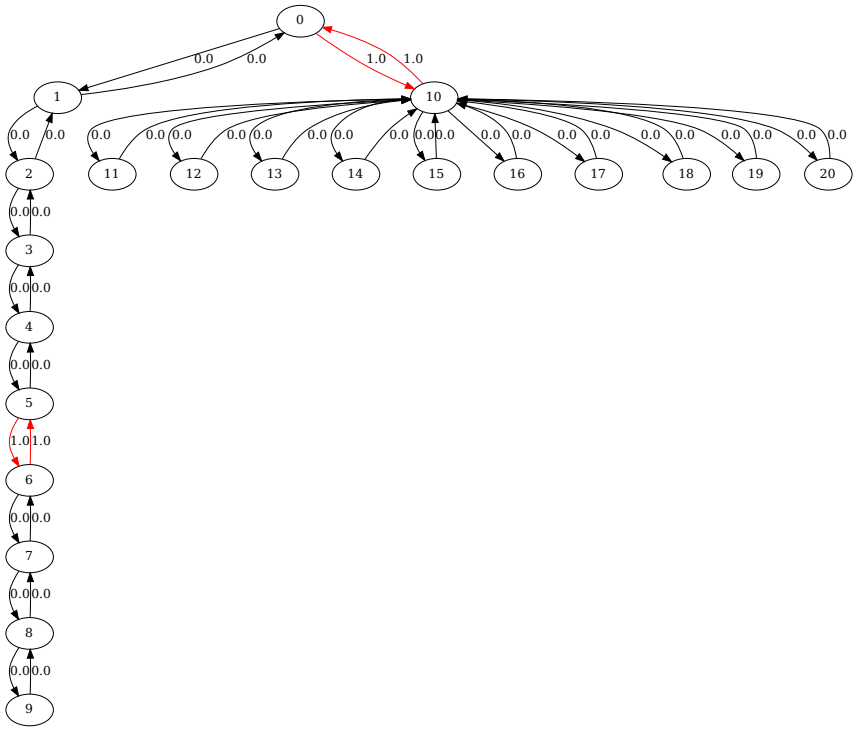


Enhancement

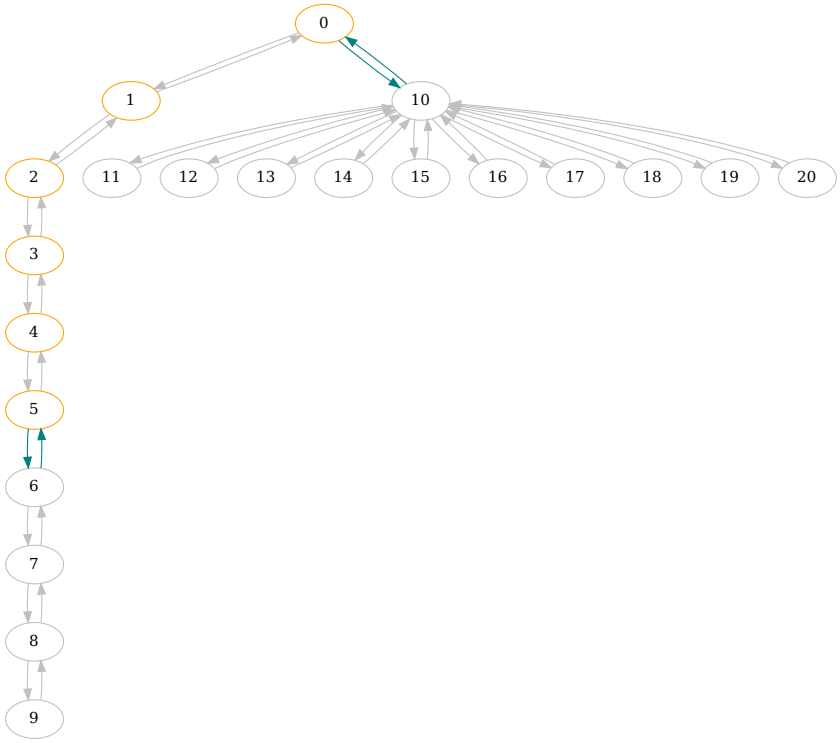
Flow



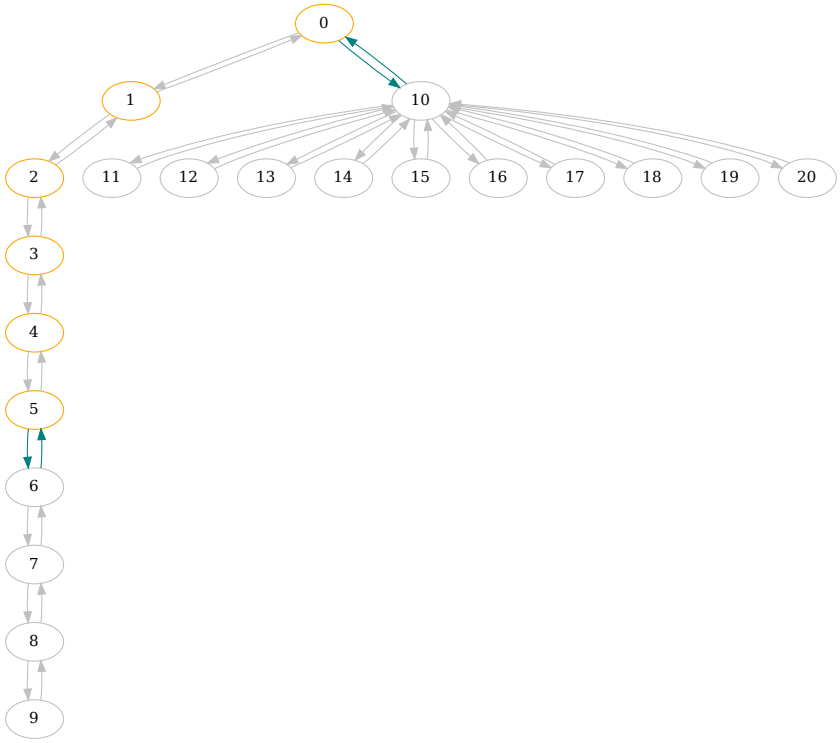
Cut



Aproximation

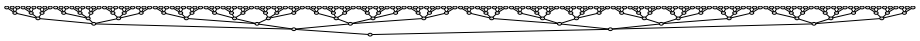


Aproximation - enhanced



tree

The source vertex is $s = 0$ and capacity is $k = 15$.



Integer linear program

Flow

Cut

Linear program

Flow

Cut

Enhancement

Flow

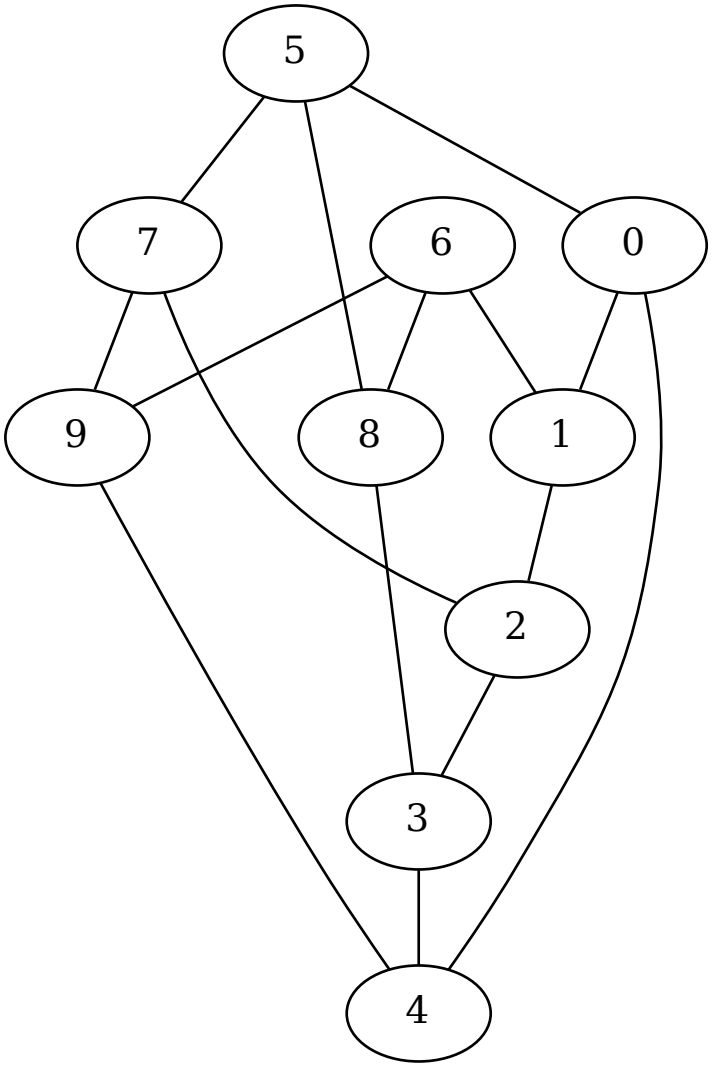
Cut

Aproximation

Aproximation - enhanced

petersen

The source vertex is $s = 0$ and capacity is $k = 6$.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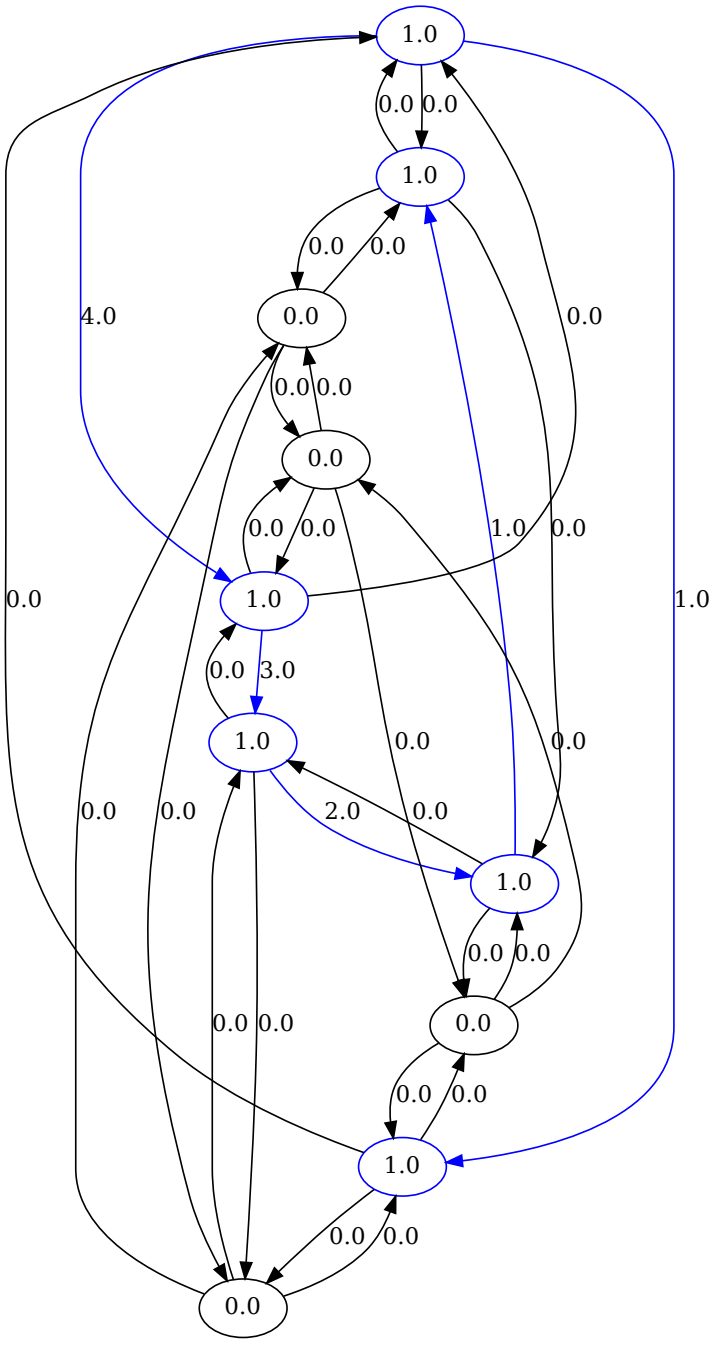
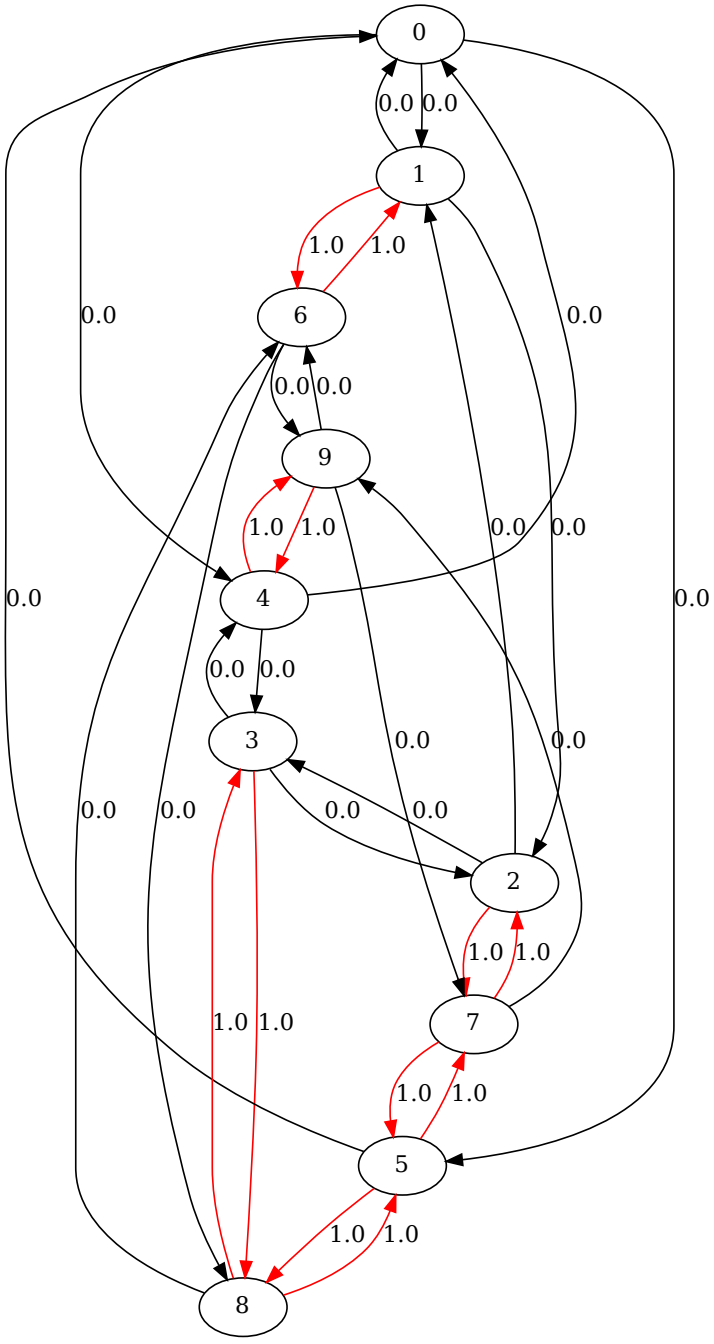
Integer linear program

Flow

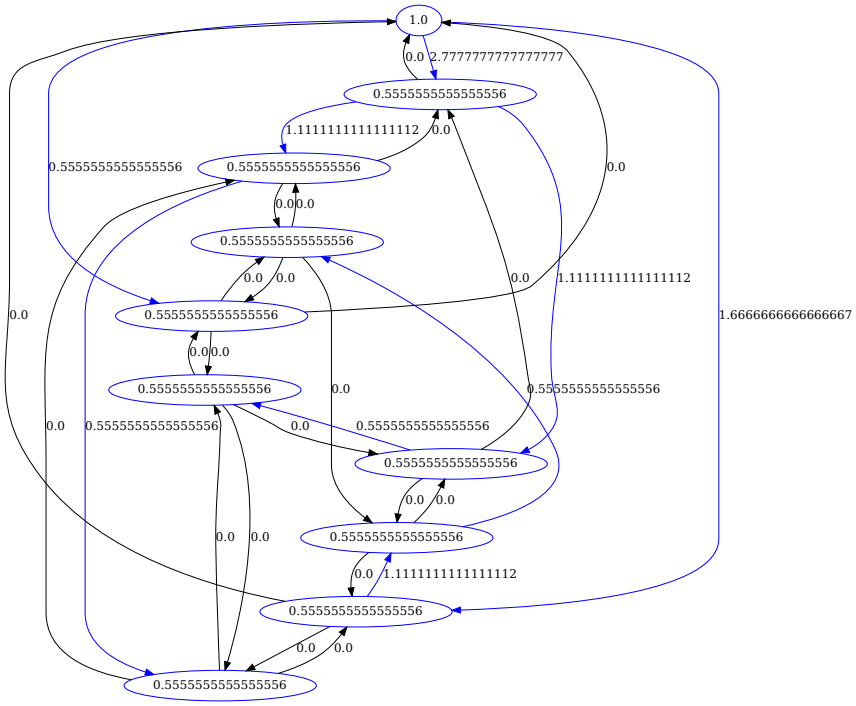


Cut

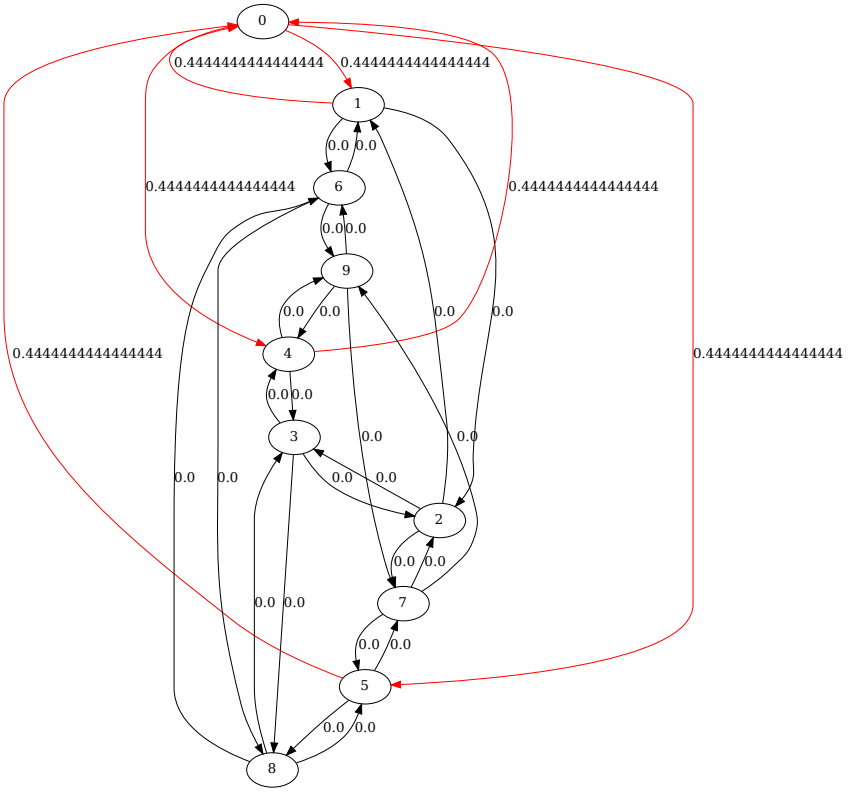


Linear program

Flow



Cut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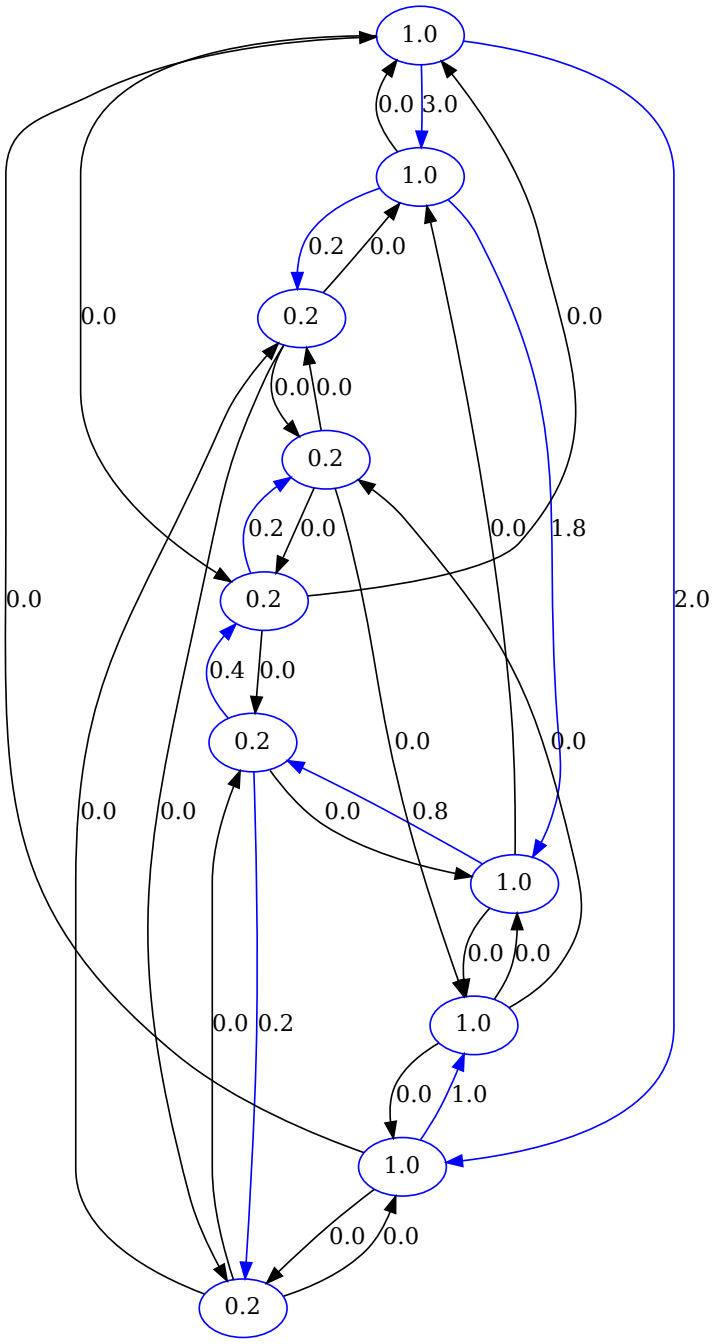
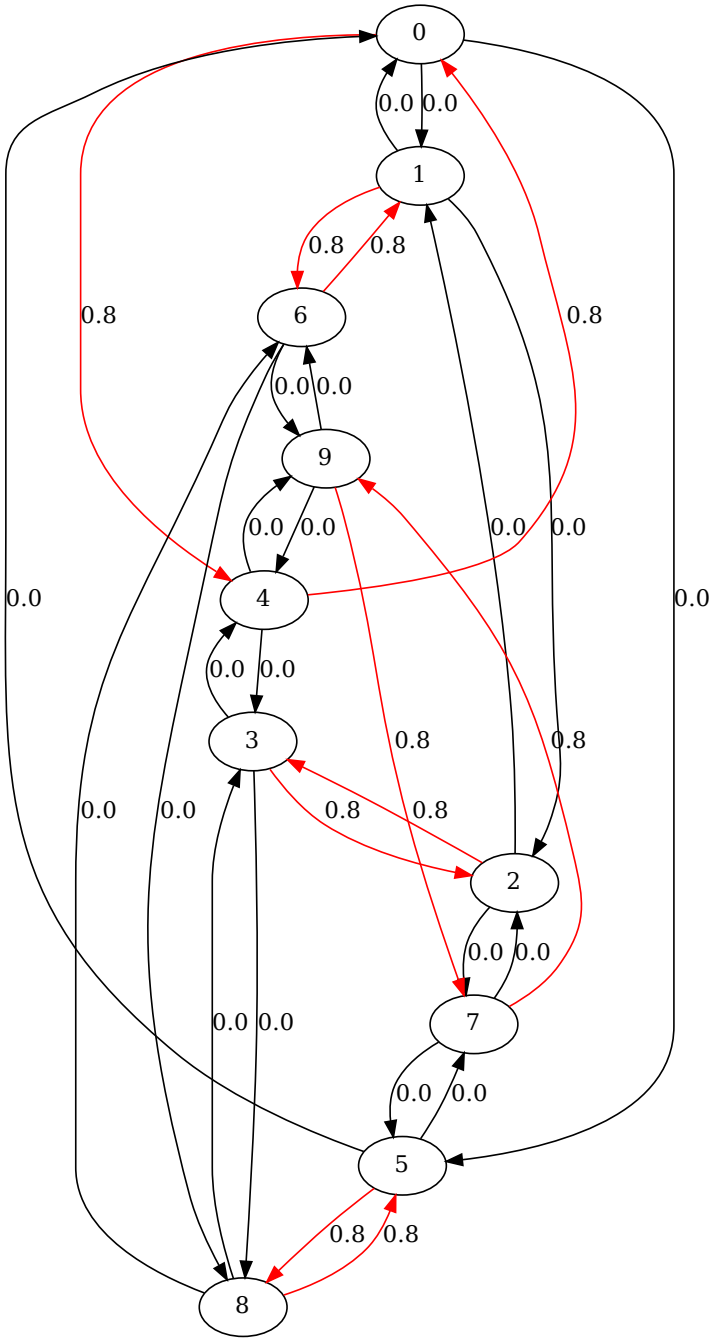
Enhancement

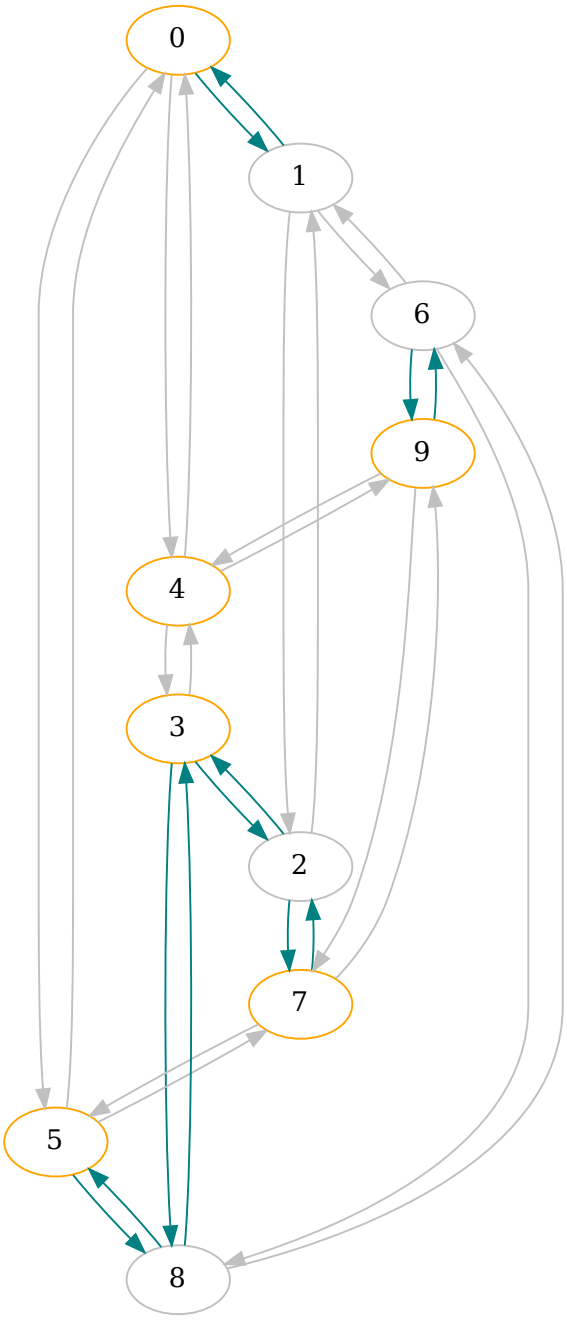
Flow



Cut



Aproximation



Aproximation - enhanced