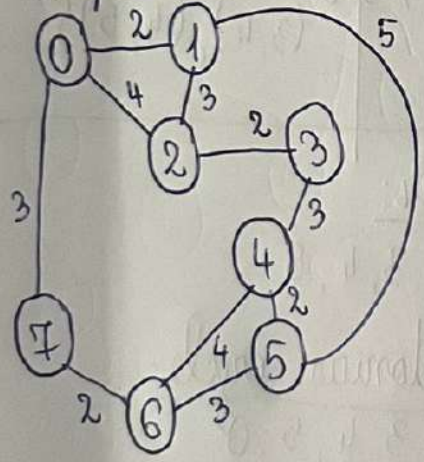
(5) MST (Brim's Algorithm), DFS - preorder traversal

G1 Input file:

```
8 12
0 1 2
1 2 3
2 3 2
3 4 3
4 5 2
5 6 3
6 7 2
7 0 3
0 2 4
2 4 4
4 6 4
1 5 5
```

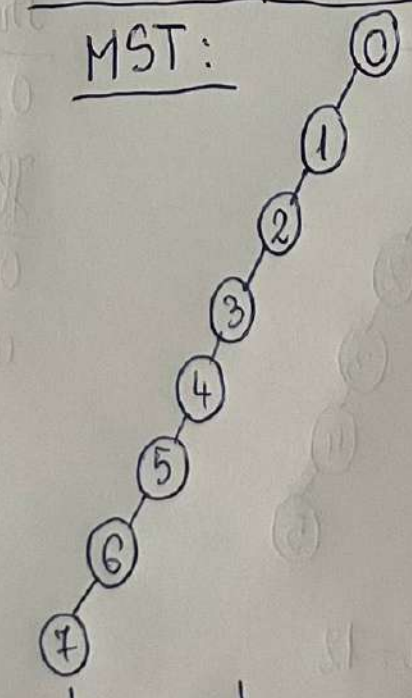
Representation:



Brim's Algorithm:

	selected edge	vertices	edges
init.		{0}	{}
it.1	(0,1)	{0,1}	{(0,1)}
it.2	(1,2)	{0,1,2}	{(0,1),(1,2)}
it.3	(2,3)	{0,1,2,3}	{(0,1),(1,2),(2,3)}
it.4	(3,4)	{0,1,2,3,4}	{(0,1),(1,2),(2,3),(3,4)}
it.5	(4,5)	{0,1,2,3,4,5}	{(0,1),(1,2),(2,3),(3,4),(4,5)}
it.6	(5,6)	{0,1,2,3,4,5,6}	{(0,1),(1,2),(2,3),(3,4),(4,5),(5,6)}
it.7	(6,7)	{0,1,2,3,4,5,6,7}	{(0,1),(1,2),(2,3),(3,4),(4,5),(5,6),(6,7)}

MST:



~~cost = 20~~ cost = 17

Preorder:

0, 1, 2, 3, 4, 5, 6, 7

Hamiltonian cycle:

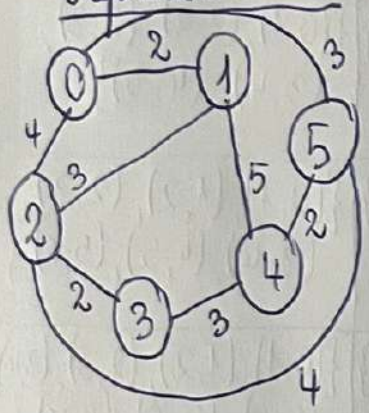
0, 1, 2, 3, 4, 5, 6, 7, 0

cost = 20

G_2 Input file:

```
6 9
0 1 2
1 2 3
2 3 2
3 4 3
4 5 2
5 0 3
0 2 4
1 4 5
2 5 4
```

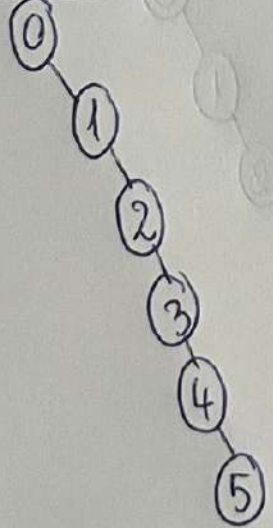
Representation:



Prim's Algorithm:

	selected edge	vertices	edges
init.		{0}	{}
it. 1	(0,1)	{0,1}	{(0,1)}
it. 2	(1,2)	{0,1,2}	{(0,1),(1,2)}
it. 3	(2,3)	{0,1,2,3}	{(0,1),(1,2),(2,3)}
it. 4	(3,4)	{0,1,2,3,4}	{(0,1),(1,2),(2,3),(3,4)}
it. 5	(4,5)	{0,1,2,3,4,5}	{(0,1),(1,2),(2,3),(3,4),(4,5)}

MST:



cost = 12

Preorder:

0, 1, 2, 3, 4, 5

Hamiltonian cycle:

0, 1, 2, 3, 4, 5, 0

cost = 15