.txt Test Cases for Documentation

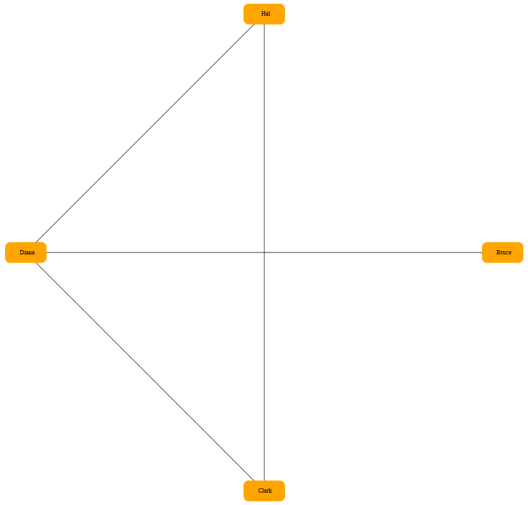
Note: All of these test cases assume correct input. Wrong filename input and wrong vertex has been tested.

Test Case 1 (given test case):

GRAPH1.TXT
4 Bruce Diana -1 Clark Diana Hal -1 Diana Bruce Clark Hal -1 Hal Clark Diana -1

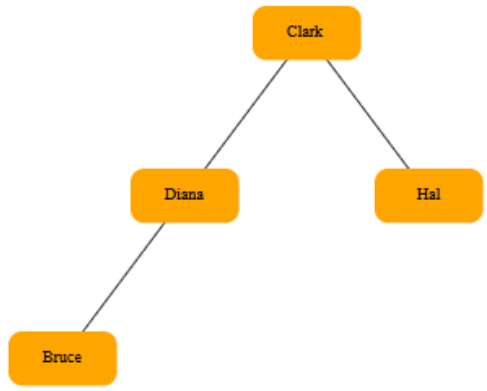
Expected vertex ID -> degree Output	Actual Output
Bruce 1 Clark 2 Diana 3 Hal 2	Bruce 1 Clark 2 Diana 3 Hal 2

Input Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
Clark	Clark Diana Hal Bruce Clark Diana Bruce Hal	Clark Diana Hal Bruce Clark Diana Bruce Hal

(Bonus) Graph
2 GRAPH:  **Hal** --down--> **Clark** --up,left--> **Diana** --right--> **Bruce**

(Bonus) BFS Tree

Start Vertex: `Clark`



Test Case 2 (not fully connected graph, higher # of vertices):

GRAPH2.TXT
10 Acheron BlackSwan Sparkle Topaz Zundamon -1 BlackSwan Acheron Sparkle Topaz -1 Bronya FuXuan RuanMei Topaz -1 FuXuan Bronya Silverwolf Topaz -1 RuanMei Bronya Topaz Metan -1 SilverWolf FuXuan Topaz -1 Sparkle Acheron BlackSwan Topaz -1 Topaz Acheron BlackSwan Bronya FuXuan RuanMei SilverWolf Sparkle -1 Zundamon Acheron Metan -1 Metan RuanMei Zundamon -1

Expected vertex ID -> degree Output	Actual Output
Acheron 4 BlackSwan 3 Bronya 3 FuXuan 3 RuanMei 3 SilverWolf 2 Sparkle 3 Topaz 7 Zundamon 2 Metan 2	Acheron 4 BlackSwan 3 Bronya 3 FuXuan 3 RuanMei 3 SilverWolf 2 Sparkle 3 Topaz 7 Zundamon 2 Metan 2

Input Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
Bronya	Bronya FuXuan RuanMei Topaz SilverWolf Metan Acheron BlackSwan Sparkle Zundamon Bronya FuXuan SilverWolf RuanMei Metan Zundamon Acheron BlackSwan Sparkle Topaz	Bronya FuXuan RuanMei Topaz SilverWolf Metan Acheron BlackSwan Sparkle Zundamon Bronya FuXuan SilverWolf RuanMei Metan Zundamon Acheron BlackSwan Sparkle Topaz

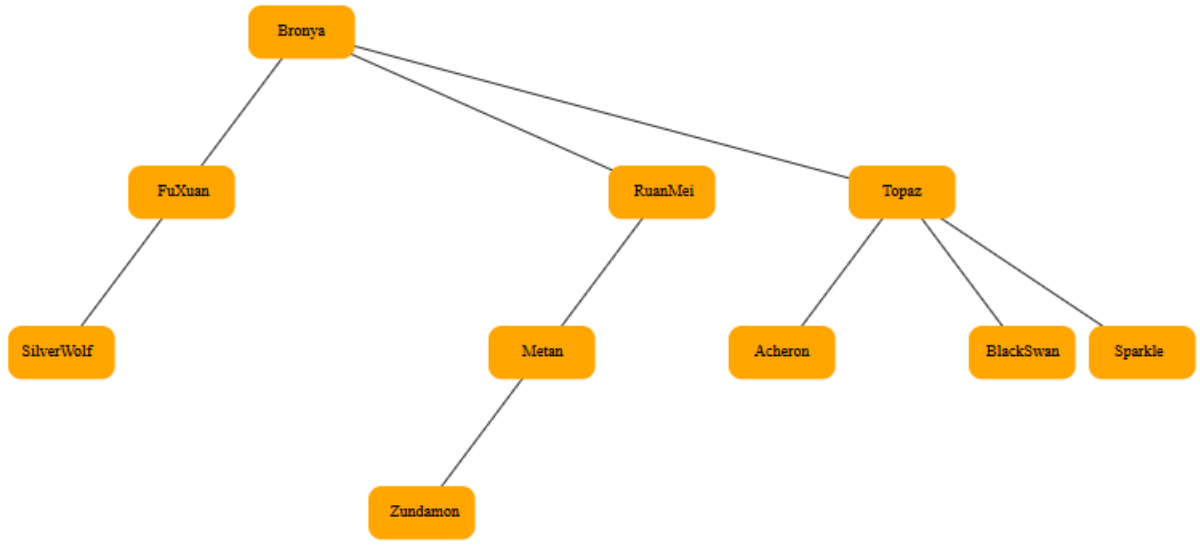
(Bonus) Graph

2 GRAPH:

(Bonus) BFS Tree

Start Vertex: `Bronya`

1 BFS TREE:



Test Case 4 (singular vertex):

GRAPH4.TXT
1 CJ -1

Expected vertex ID -> degree Output	Actual Output
CJ 0	CJ 0

Input Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
CJ	CJ CJ	CJ CJ

(Bonus) Graph


(Bonus) BFS Tree
Start Vertex: CJ 

Test Case 5 (disconnected graphs 1 - singular vertices):

GRAPH5.TXT
3 Dipper -1 Mabel -1 Stan -1

Expected vertex ID -> degree Output	Actual Output
Dipper 0 Mabel 0 Stan 0	Dipper 0 Mabel 0 Stan 0

Input Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
Dipper	Dipper Dipper	Dipper Dipper
Mabel	Mabel Mabel	Mabel Mabel

(Bonus) Graph


(Bonus) BFS Tree
Start Vertex: `Dipper` 
Start Vertex: `Mabel` 

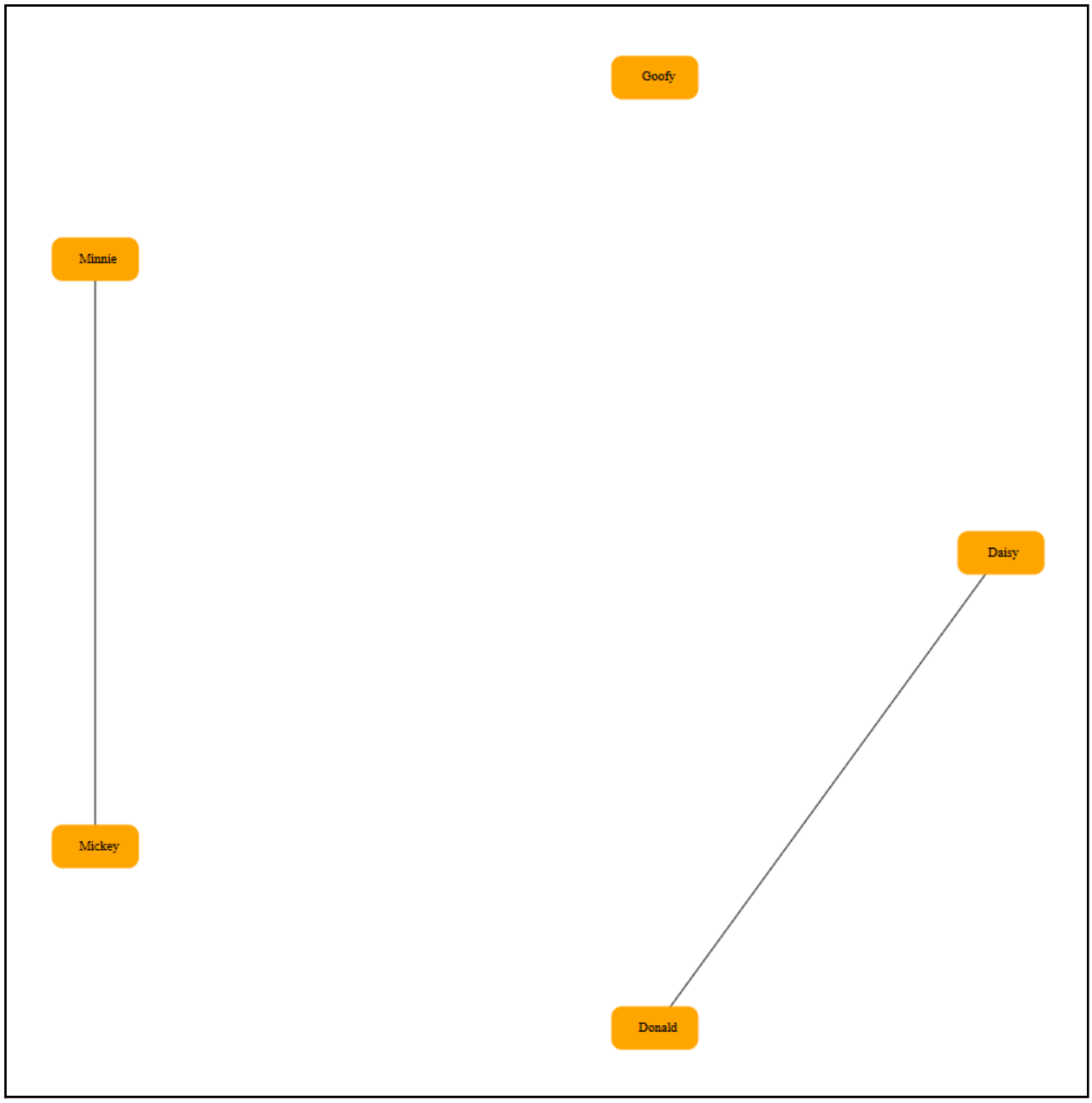
Test Case 6 (disconnected graphs 2 - groups and a singular vertex):

GRAPH6.TXT
5 Daisy Donald -1 Donald Daisy -1 Mickey Minnie -1 Minnie Mickey -1 Goofy -1

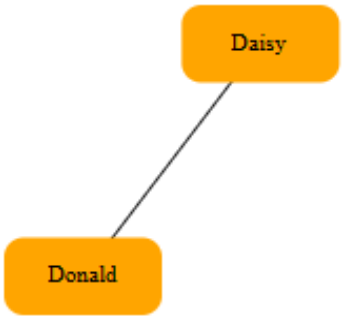
Expected vertex ID -> degree Output	Actual Output
Daisy 1 Donald 1 Mickey 1 Minnie 1 Goofy 0	Daisy 1 Donald 1 Mickey 1 Minnie 1 Goofy 0

Input Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
Daisy	Daisy Donald Daisy Donald	Daisy Donald Daisy Donald
Minnie	Minnie Mickey Minnie Mickey	Minnie Mickey Minnie Mickey
Goofy	Goofy Goofy	Goofy Goofy

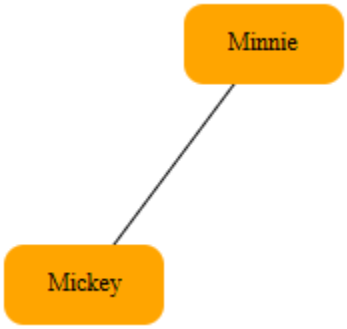
(Bonus) Graph



(Bonus) BFS Tree
Start Vertex: `Daisy`



Start Vertex: `Minnie`



Start Vertex: `Goofy`

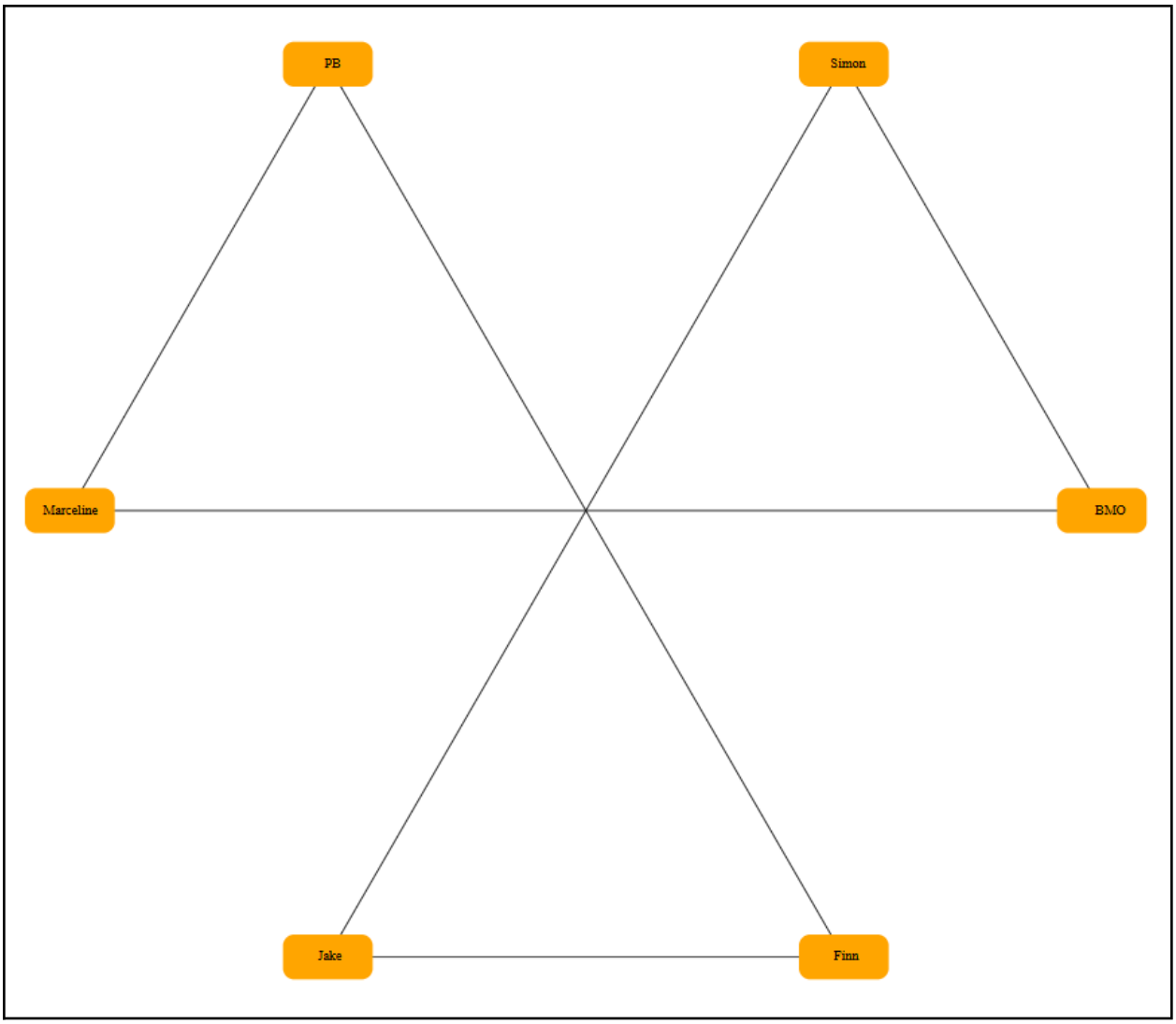
Test Case 7 (cyclic):

GRAPH7.TXT
6 BMO Marceline Simon -1 Finn Jake PB -1 Jake Finn Simon -1 Marceline BMO PB -1 PB Finn Marceline -1 Simon BMO Jake -1

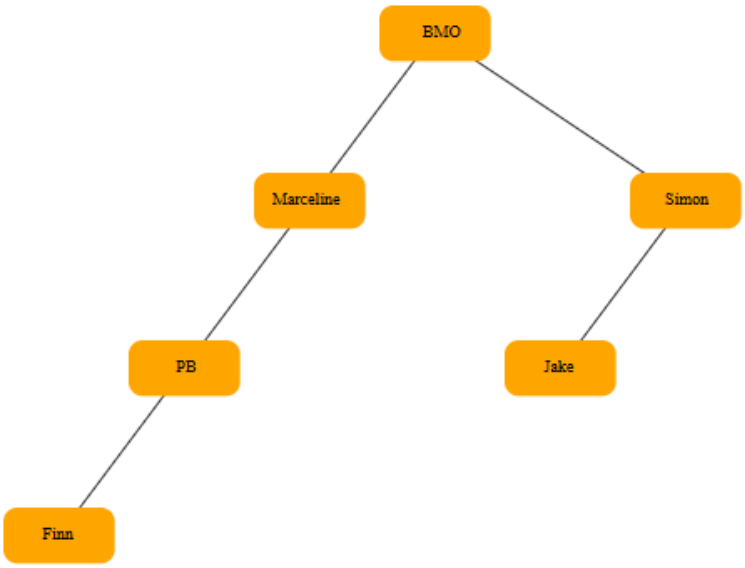
Expected vertex ID -> degree Output	Actual Output
BMO 2 Finn 2 Jake 2 Marceline 2 PB 2 Simon 2	BMO 2 Finn 2 Jake 2 Marceline 2 PB 2 Simon 2

Input Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
BMO	BMO Marceline Simon PB Jake Finn BMO Marceline PB Finn Jake Simon	BMO Marceline Simon PB Jake Finn BMO Marceline PB Finn Jake Simon
Marceline	Marceline BMO PB Simon Finn Jake Marceline BMO Simon Jake Finn PB	Marceline BMO PB Simon Finn Jake Marceline BMO Simon Jake Finn PB

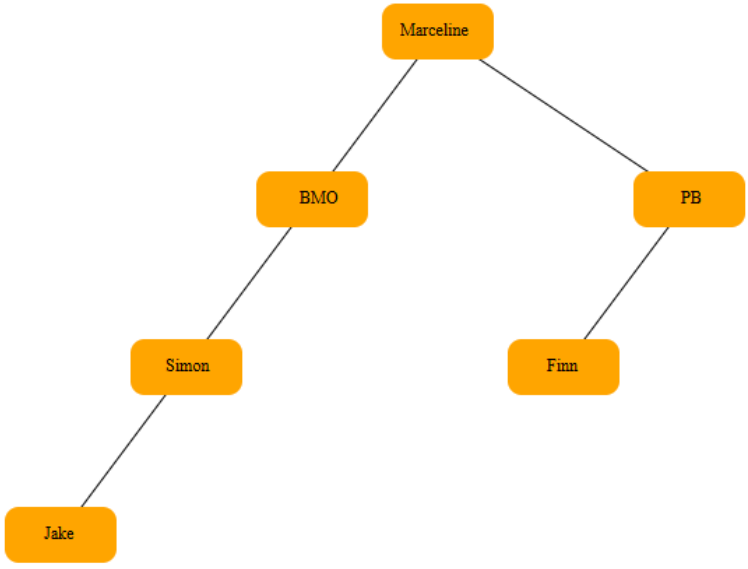
(Bonus) Graph



(Bonus) BFS Tree
Start Vertex: BMO



Start Vertex: `Marceline`



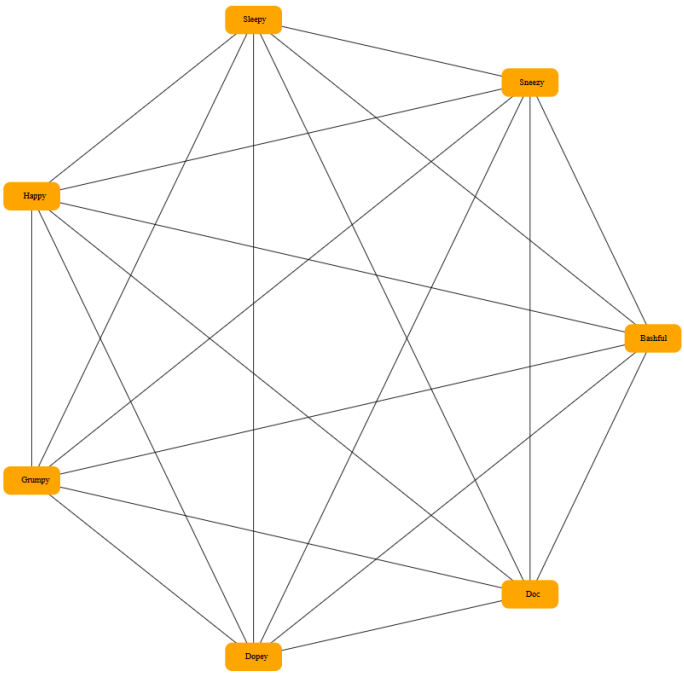
Test Case 8 (fully connected graphs):

GRAPH8.TXT ([insert short test case desc])
7 Bashful Doc Dopey Grumpy Happy Sleepy Sneezy -1 Doc Bashful Dopey Grumpy Happy Sleepy Sneezy -1 Dopey Bashful Doc Grumpy Happy Sleepy Sneezy -1 Grumpy Bashful Doc Dopey Happy Sleepy Sneezy -1 Happy Bashful Doc Dopey Grumpy Sleepy Sneezy -1 Sleepy Bashful Doc Dopey Grumpy Happy Sneezy -1 Sneezy Bashful Doc Dopey Grumpy Happy Sleepy -1

Expected vertex ID -> degree Output	Actual Output
Bashful 6 Doc 6 Dopey 6 Grumpy 6 Happy 6 Sleepy 6 Sneezy 6	Bashful 6 Doc 6 Dopey 6 Grumpy 6 Happy 6 Sleepy 6 Sneezy 6

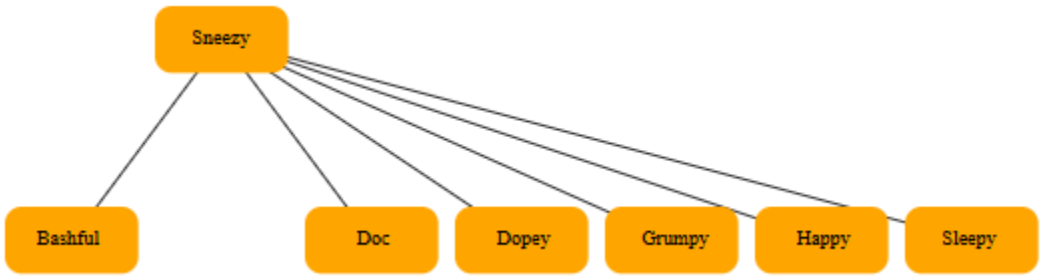
Input Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
Sneezy	Sneezy Bashful Doc Dopey Grumpy Happy Sleepy Sneezy Bashful Doc Dopey Grumpy Happy Sleepy	Sneezy Bashful Doc Dopey Grumpy Happy Sleepy Sneezy Bashful Doc Dopey Grumpy Happy Sleepy

(Bonus) Graph



(Bonus) BFS Tree

Start Vertex: `Sneezy`



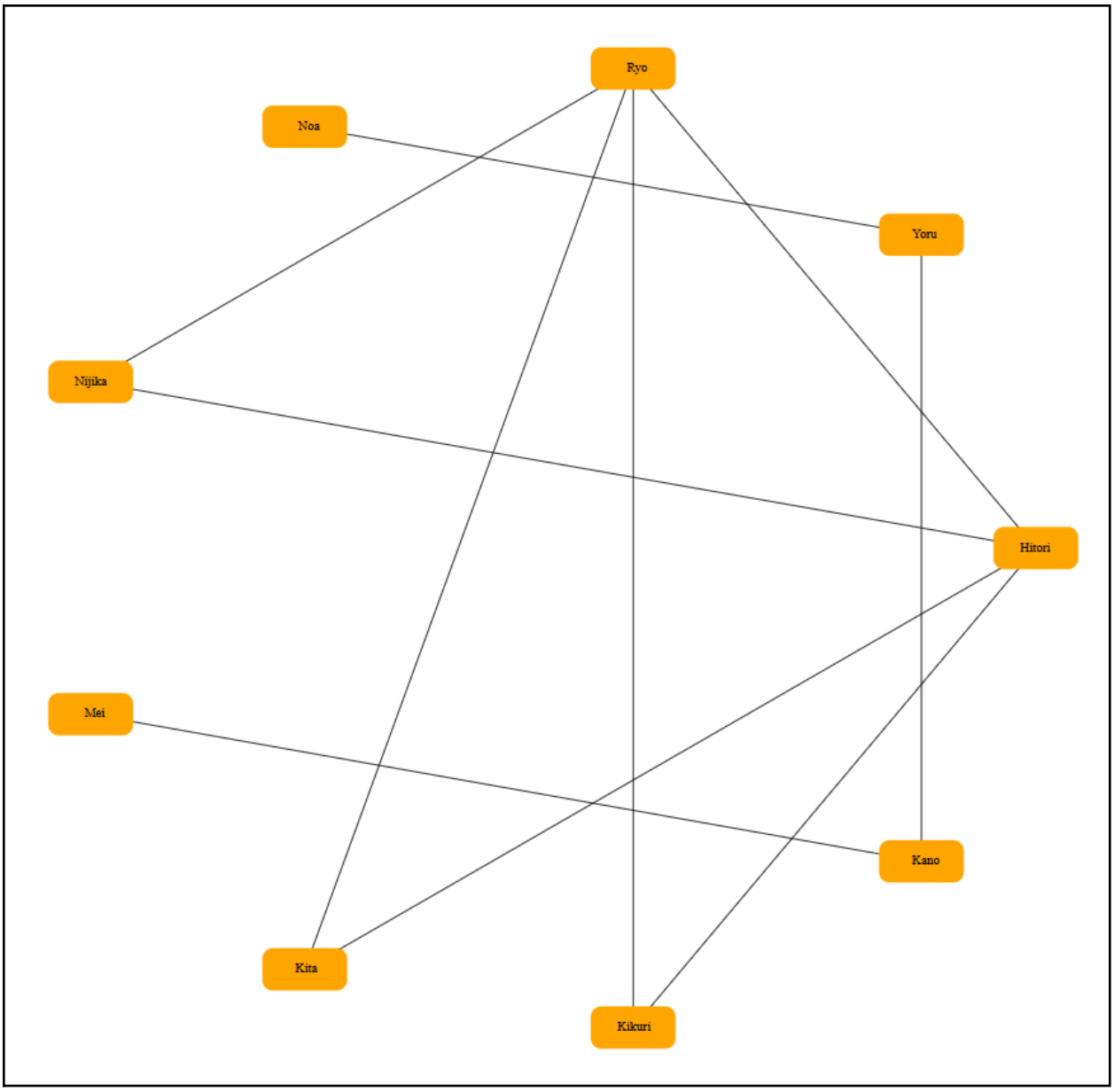
Test Case 9 (disconnected graphs 3):

GRAPH9.TXT
9 Hitori Kikuri Kita Nijika Ryo -1 Kano Yoru Mei -1 Kikuri Hitori Ryo -1 Kita Hitori Ryo -1 Mei Kano -1 Nijika Hitori Ryo -1 Noa Yoru -1 Ryo Hitori Kikuri Kita Nijika -1 Yoru Kano Noa -1

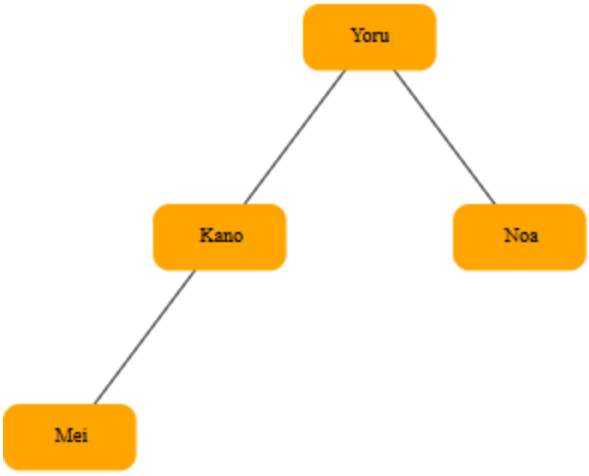
Expected vertex ID -> degree Output	Actual Output
Hitori 4 Kano 2 Kikuri 2 Kita 2 Mei 1 Nijika 2 Noa 1 Ryo 4 Yoru 2	Hitori 4 Kano 2 Kikuri 2 Kita 2 Mei 1 Nijika 2 Noa 1 Ryo 4 Yoru 2

Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
Yoru	Yoru Kano Noa Mei Yoru Kano Mei Noa	Yoru Kano Noa Mei Yoru Kano Mei Noa
Kikuri	Kikuri Hitori Ryo Kita Nijika Kikuri Hitori Kita Nijika Ryo	Kikuri Hitori Ryo Kita Nijika Kikuri Hitori Kita Nijika Ryo
Hitori	Hitori Kikuri Kita Nijika Ryo Hitori Kikuri Kita Nijika Ryo	Hitori Kikuri Kita Nijika Ryo Hitori Kikuri Kita Nijika Ryo

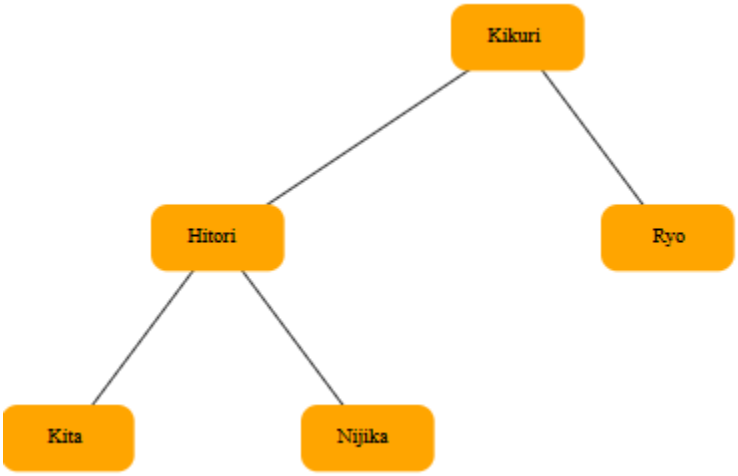
(Bonus) Graph



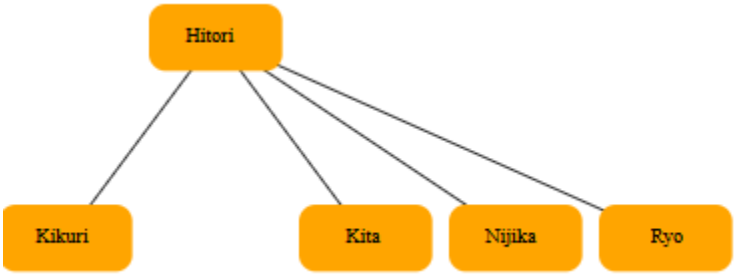
(Bonus) BFS Tree
Start Vertex: `Yoru`



Start Vertex: `Kikuri`



Start Vertex: `Hitori`



Test Case 10 :

GRAPH10.TXT

```
25
1 2 3 4 5 -1
2 1 3 6 7 -1
3 1 2 4 8 -1
4 1 3 5 9 -1
5 1 4 10 11 -1
6 2 7 12 13 -1
7 2 6 8 14 -1
8 3 7 15 16 -1
9 4 10 17 18 -1
10 5 9 11 19 -1
11 5 10 20 21 -1
12 6 13 22 -1
13 6 12 23 -1
14 7 15 24 -1
15 8 14 25 -1
16 8 17 -1
17 9 16 18 -1
18 9 17 19 -1
19 10 18 20 -1
20 11 19 21 -1
21 11 20 22 -1
22 12 21 23 -1
23 13 22 24 -1
24 14 23 25 -1
25 15 24 -1
```

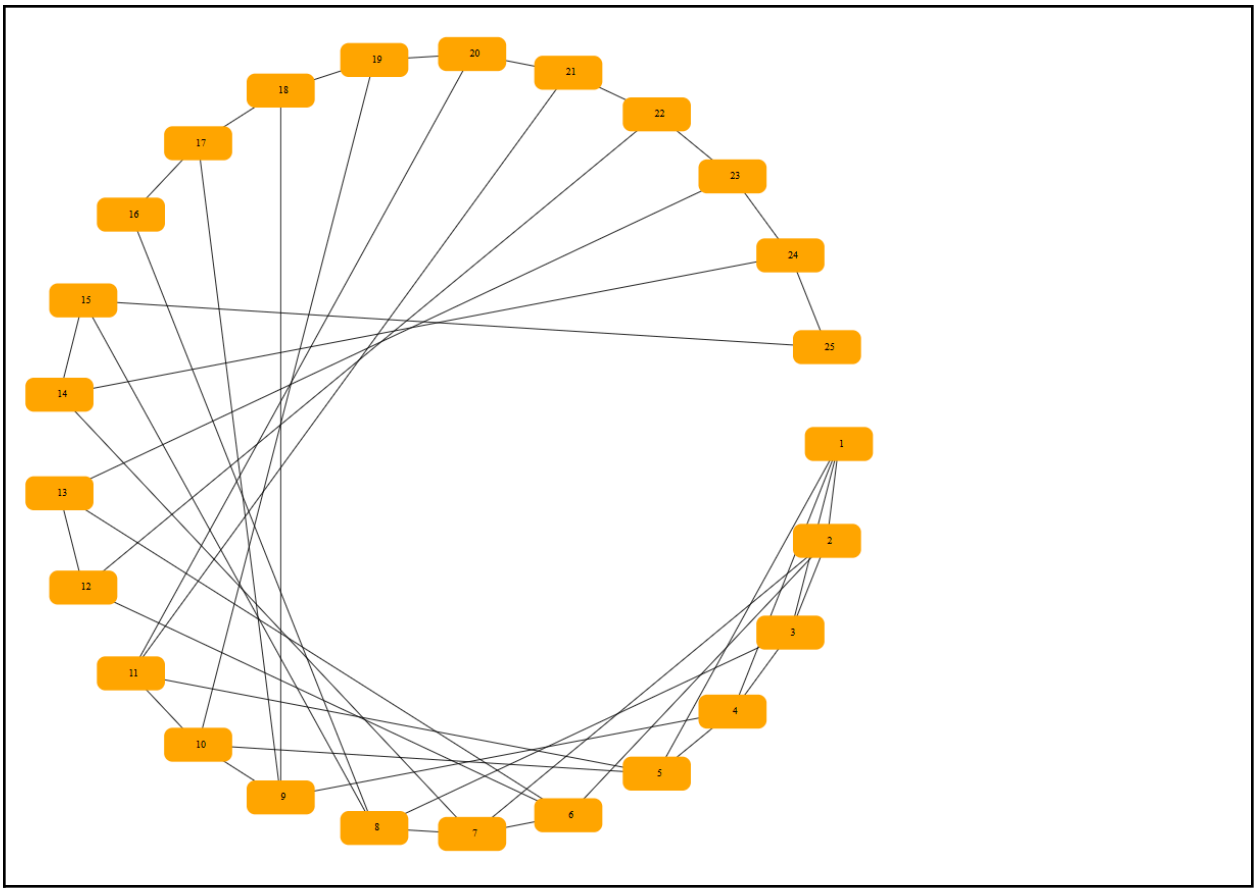
Expected vertex ID -> degree Output	Actual Output
1 4	1 4
2 4	2 4
3 4	3 4
4 4	4 4
5 4	5 4
6 4	6 4
7 4	7 4
8 4	8 4
9 4	9 4
10 4	10 4
11 4	11 4
12 3	12 3
13 3	13 3
14 3	14 3
15 3	15 3
16 2	16 2
17 3	17 3

18 3 19 3 20 3 21 3 22 3 23 3 24 3 25 2	18 3 19 3 20 3 21 3 22 3 23 3 24 3 25 2

Input Start Vertex	Expected BFS/DFS Output	Actual BFS/DFS Output
1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 1 2 6 12 22 21 11 10 19 18 17 16 8 15 14 24 25 9 20 23 13 7 3 4 5	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 1 2 6 12 22 21 11 10 19 18 17 16 8 15 14 24 25 9 20 23 13 7 3 4 5
22	22 12 21 23 13 6 11 20 24 2 7 10 5 19 14 25 1 3 8 9 4 18 15 16 17 22 12 13 6 2 1 4 9 10 11 20 19 17 16 8 15 14 24 25 18 5 3 7 21 23	22 12 21 23 13 6 11 20 24 2 7 10 5 19 14 25 1 3 8 9 4 18 15 16 17 22 12 13 6 2 1 4 9 10 11 20 19 17 16 8 15 14 24 25 18 5 3 7 21 23

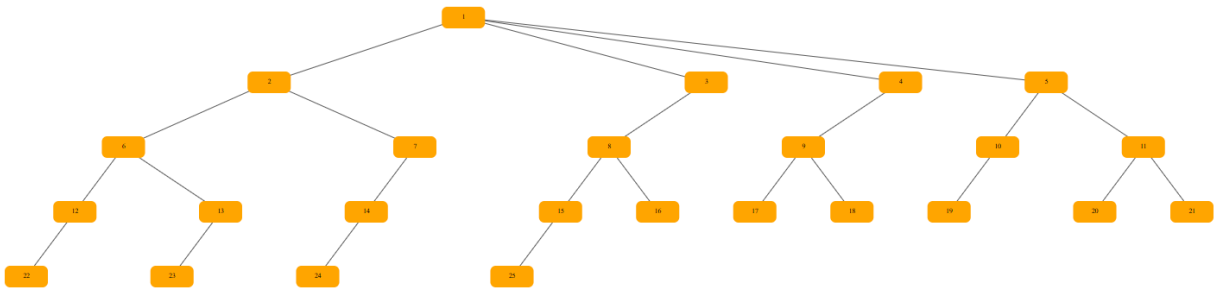
** note: by lexicographical order, 10 < 9 (or any single digit number that's not 1)

(Bonus) Graph

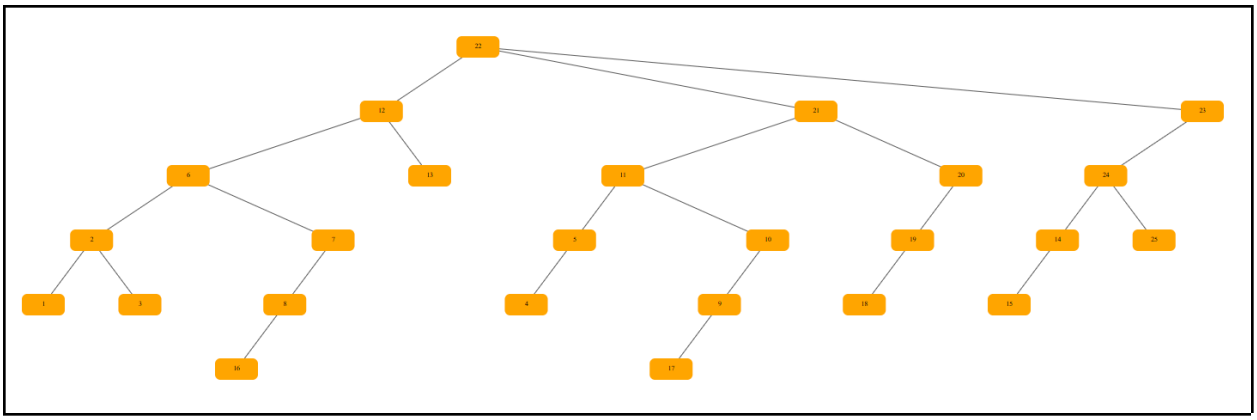


(Bonus) BFS Tree

Start Vertex: 1



Start Vertex: 22


22
12
21
23
6
13
11
20
24
2
7
5
10
19
14
25
1
3
8
4
9
18
15
16
17