simulate the algorithm on the graph given, and record the vertices in r in the order that they are placed into the collection.

Depth first search (stack version)

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

Stack:

Breadth first search (queue version)

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

Queue: