1. [NOTE: The following questions apply to the results from the "Practicing Graph Analytics in Neo4j With Cypher" Assignment using the dataset titled 'gene_gene_associations_50k.csv'. 1 point

What is the number of nodes returned?

- ○ 50,000
- ◉ 9656
- ○ 9756
- ○ 8673

2. **What's the number of edges?** 1 point

- ○ 50,000
- ○ 49,834
- ◉ 46,621
- ○ None of the above

3. **The number of loops in the graph is:** 1 point

- ○ 1035
- ○ 1395
- ◉ 1221
- ○ 1243

4. The query match (n)-[r]->(m) where m <> n return distinct n, m, count(r) gives us 1 point

- ◉ **the count of all non loop edges between every adjacent node pair.**
- ○ **the count of all edges between every adjacent node pair.**
- ○ **the count of all edges.**
- ○ None of the above

5. **The query match (n)-[r]->(m) where m <> n return distinct n, m, count(r) as myCount order by myCount desc limit 1 produces what?** 1 point

- ○ a random edge
- ○ the node with the maximum number of looping edges
- ○ two neighboring nodes, each with a high outdegree
- ◉ the pair of nodes with the maximum number of multi-edges between them

6. **The query match p=(n {Name:'BRCA1'})-[:AssociationType*..2]->(m) return p produces what?** 1 point

- ○ The neighbors whose distance is greater than 1 and less than 2 of the node whose name is 'BRCA1'
- ◉ The 2-neighborhood of the node whose name is 'BRCA1'
- ○ The neighbors' neighbors of the node whose name is 'BRCA1'
- ○ The neighbors of the node whose name is 'BRCA1'

7. **How many <u>non-directed</u> shortest paths are there between the node named 'BRCA1' and the node named 'NBR1'?** 1 point

- ○ 8
- ◉ 9
- ○ 10
- ○ None of the above

8. **The top 2 nodes with the highest outdegree are:** 1 point

- ○ GRB2 and TP53
- ○ EP300 and BRCA1
- ○ MEPCE and EGFR
- ◉ SNCA and BRCA1

9. **Applying the example queries provided to you, create the degree histogram for the network. How many nodes in the graph have a degree of 3?** 1 point

- ○ 1351
- ◉ 821
- ○ 675
- ○ 512