```
/usr/local/bin/python3.9 /Users/yashdave/Desktop/CSC311/A3/A3.py
======= Question 1 (b) =======
Neural Classifier Score: 1.0
Neural Classifier Score: 0.712
======= Question 1 (d) =======
Neural Classifier Score Difference: 0.0
======= Question 2 (r) ========
The length of the path is 15
======= Question 2 (s) ========
The length of path 1 is 15
The length of path 2 is 17
The length of path 3 is 15
The length of path 4 is 17
The length of path 5 is 13
The length of path 6 is 21
The length of path 7 is 13
The length of path 8 is 13
The length of path 9 is 13
======= Question 2 (t) =======
The length of path 1 is 13
The length of path 2 is 13
The length of path 3 is 13
The length of path 4 is 13
The length of path 5 is 13
The length of path 6 is 13
The length of path 7 is 13
The length of path 8 is 13
The length of path 9 is 13
====== Question 3 (a) =======
```

Test score for 3 clusters train: -14885.962431128333 Test score for 3 clusters test: -15005.402507884974

======= Question 3 (b) ======
Test score for 3 clusters train: -5.070784828872725 Test score for 3 clusters test: -5.096255430529465
======= Question 3 (c) =======
Test score for 3 clusters train: -4.830692576590552 Test score for 3 clusters test: -4.90215848878368
======= Question 3 (e) =======
I don't know
======= Question 3 (h) =======
Test score for 10 clusters train 50,000: 2229.2594293374805 Test score for 10 clusters test 50,000: 2209.3535023232484
Overtion 2 (i)
======= Question 3 (i) =======
Test score for 10 clusters train 500: 2364.6303172710172 Test score for 10 clusters test 500: -27436.064075910755
Test score for 10 clusters train 500: 2364.6303172710172

Test score for 10 clusters test 10: -30273991.05962495

Process finished with exit code 0