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CISC 235
Assignment 4
Data Analyze

I confirm that this submission is my own work and is consistent with the Queen's regulations on Academic Integrity.

Part1 and Part2.
See code part.

Part3

Running result

```
average diff with graph size = 100 is 83.23%
average diff with graph size = 200 is 84.92%
average diff with graph size = 400 is 89.31%
average diff with graph size = 600 is 88.21%
average diff with graph size = 800 is 88.25%
average diff with graph size = 1000 is 87.60%
average diff with graph size = 1200 is 88.45%
average diff with graph size = 1400 is 88.99%
average diff with graph size = 1600 is 88.92%
\\ \ |
```

Estimate the expected value of Diff if the graph has 2500 vertices is about 90%