# BUFFER SIZE vs I/O SPEED

***OBSERVATION:***

The program I wrote, writes 2 GB of data to a file using different buffer sizes. The buffer sizes I used to test the program were from 16 KB, 32KB, 64 KB.....4 MB. Regardless of the buffer size, the amount of data written is always constant. The program divides the total size of the data, 2 GB in this case with the buffer size to calculate how many times it needs to execute the write function call. This is represented by the count variable in the spreadsheet. The data shows that the program writes less amount of data when buffer size chosen is too small since it has to make a large number of write calls thus waiting for IO to happen. When the buffer size chosen is large, the program makes less number of IO calls (write calls) and hence the number of bytes written per second is comparatively large. The graph below shows the speed increases linearly with the size of the buffer.