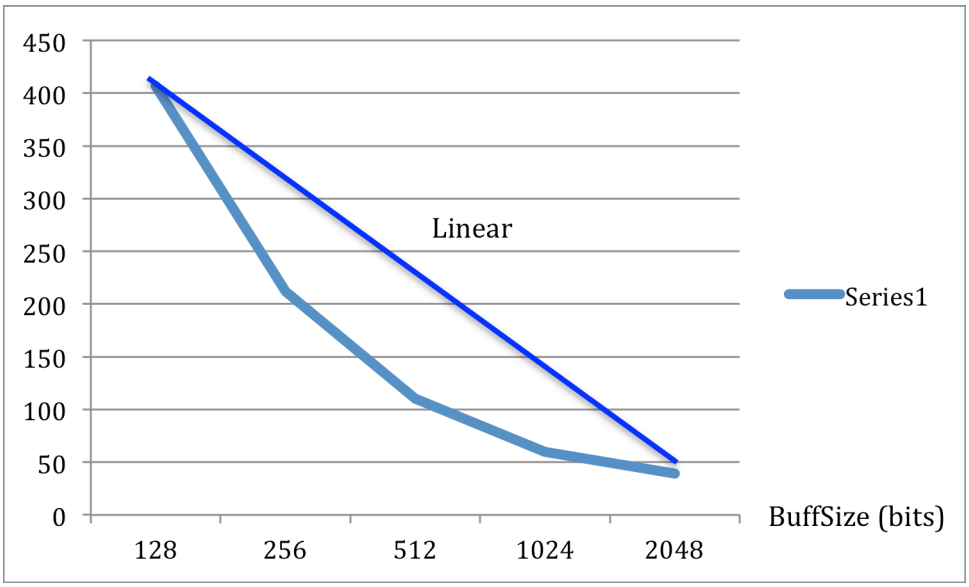
Time(ms) Ido Michael 201157138

2.A



128 – 407ms
256 – 212ms
512 – 110ms
1024 – 60ms
2048 – 39ms

e

2.B Our function line is built that way because the bigger the buffer less system calls are being made slowing down our performance. The function is not parallel to X axis because the buffer size affects the speed of reading the file therefor different times for different buffersize.

2.C Yes, the running time will be significantly slower than original because we have added an expensive system call(IO call) that will happen for each new buffer.

Part 3

1. False, By printing out to the screen we use an IO system call operation.
2. False pressing a key on the computer counts as an interrupt.
3. False, interrupts are sent from the OS to the CPU.
4. False, if the application needs for example an access to the hard-drive, the program use system calls to ask the OS to access the hard-drive.
5. False, not all the programs of the OS runs in kernel mode just the core ones, for example MSDOS is part of the OS and runs in user mode.

6. False, Except for some hardware interrupts no application can disable them including the OS.
7. False, virtual machine means creating a middle coordinator between the OS and the program therefore creating overhead which is slowing the run time.
8. False, the program can run in user mode and use system calls to access the CD-ROM.
9. False, the more system calls the program uses, the more slower it will be because of the context switching.

10. False, external devices uses interrupts to access the OS.