**Assumptions Made**

Results obtained using a file of 59792 bytes. Results obtained assumes that the data transfers occur in a similar way within the same computer (using localhost) and between different computers (using ip address).

**Results**

**Description of Results**

Both UDP and the Stop and Wait protocols generally follow the same exponentially decreasing trend, in terms of average transfer time, and similar almost linear increase, in terms of average data rate, when the size of DATALEN is increased from 10 to 10000.

When looking at the individual average values for each protocol, the average time taken is higher and average data rate is smaller for the Stop and Wait protocol when DATALEN is very small (<50). However, when DATALEN is increased, Stop and Wait protocol has slightly lower average time taken and higher average data rate. This could be due to the way the transmission is implemented, with a counter to track the state of the transmission in the UDP protocol that may slow down the transmission rate and hence leading to higher average time taken. The Stop and Wait protocol need not track the state due to the same batch sizes, possibly contributing to the faster times and higher rates.

Also, at larger DATALEN sizes, the differences posted by the two protocols become less. Since less packets are exchanged, fewer acks are transmitted and received, adding less to the differences in time and data rate for the protocols.