Exercise 3

Name:_____ Student ID:_____

Question 1

Host A sends a file of **51300** bytes to Host B over a TCP connection. Assume the maximum segment size (MSS) is 144 bytes. The segment has no options field. The transport layer, network layer, and data-link layer add headers of a total size of 66 bytes to each segment before the resulting packet is sent out over a 100 Mbps link.

(a)   What is the size of the first packet?

(b)   What is the size of the last packet?

(c)   What is the sequence number of the last segment (in decimal)?

(d)   What is the sequence number of the last segment (in 8 hexadecimal digits)?

(e)   Assume no congestion, calculate the time required to transmit the file (in msec, round to 3 decimal places).

[5 marks]