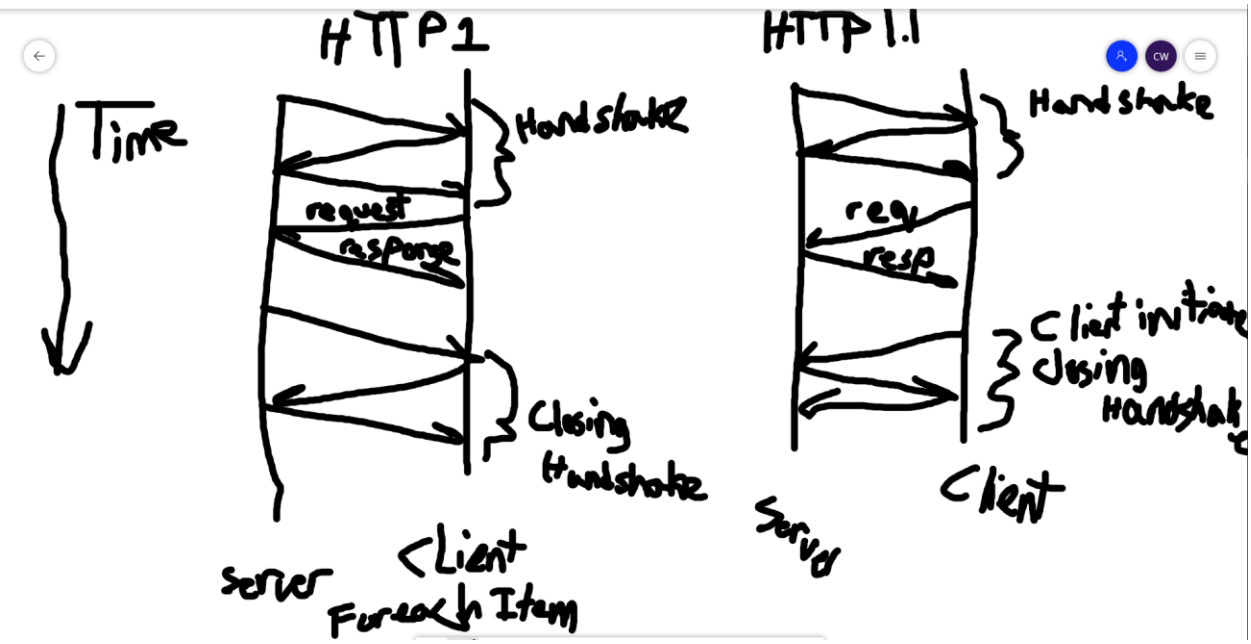
Part 1

Worked on it with Kent Mark Files are located in zip file

Part 2

A



B

HTTP 1 : 1 round trip time for the hand shake, 1 round trip time for the request and response so 2 round trip times along with tie time to transmit the file so the equation for each item is

Time = 2(RT) + (TT)

Where RT = round trip time and TT = transmit time

HTTP 1.1 : Total time is RT for each item. This is because one RT for the hand shake and each other item that is requested is a request away and the requests do not have to wait for a handshake to send a new request so they can be done in RT amount of time

So Time = RT for each item

General N:

HTTP 1.0 : Time = 2(RT) + N(2RT + TT)

HTTP 1.1 : Time = 2(RT) + N(RT)

C

1.0 with pipelineing – 2RT + 2*(N/M)RT

Where N is number of items and M is number of parallel connections

1.1 Without Pipelining – 2(RT) + N(RT)

Where N = number of items

N = 2*(N/M)

1 = 2/M

M = 2

So 1.1 Without pipelining would have better performance when there are < 2 parallel 1.0 connections with pipelining

P4

A. /cs452/index.html

B. HTTP 1.1

C. persistent

D. gai.a.cs.umass.edu

E. Mozilla 5.0 so probably Firefox. This is needed as the same computer could be using more than one browser to the same location.

P16

SMTP uses '.' To indicate the end of a message body

HTTP uses content length to determine when the message body is done

These would not be interchangeable since one is a character and the other is a length. The only way that they would be interchangeable is if the characters were the same or if they both used the length of the message.