CMPT 431 Assignment 1:

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Question 1:

Use half of the RTT as a measure of delay is not a good idea for the following reasons:

- The RTT of each request is bound to vary for various networking reasons such as route switching and high traffic
- Assume that the time it takes for a request to reach the server is less than the time it for the server to process the request, in that case, if we set the delay to half of the RTT then the delay will be inaccurate
- The RTT could be skewed one way, e.g., the request may take a different route than the response and the difference between their travel times could be large

Question 3:

The client will constantly be waiting for a response for the following reasons:

- The request was lost in transit and never reached the server
- The IP address of the server does not exist in the network
- The server receives the request but it is stuck in an infinite loop

We can deal with these problems gracefully by creating a timeout for our request and by specifying a threshold for repetitive requests that try to reach the server. If the request exceeds a certain threshold of requests and timeouts then display to the User that the client cannot communicate with the server. The number of repetitive requests and the timeout for each request can be adjusted to match the application or use case.