



1. You are given a virtual network with three host **h1**(192.168.1.2), **h2**(192.168.1.3), and **h3**(192.168.1.4).
 - Create four TCP servers on **h2**. There servers are ADD server (port number 12500), SUB server (port number 12501), MUL server (port number 12502), and IDIV server (port number 12503). If a client supplies two integers to these servers, they should perform the operation specified in their name. Note that IDIV stands for *integer division*.
 - Upon successful computation, these servers should send the computed value to a UDP server on host **h3**. This UDP server on **h3** is expected to square the value received from **h2** and send the result to **h1** over a TCP connection.
 - Create a program on host **h1** which takes three arguments. The first two are integers and the third is the operation that needs to be performed on these integers (ADD, SUB, MUL or IDIV). Then, depending on the operation specified, your program should send the computation request to one of the servers on host **h2**, and display the result which it gets from **h3**.

*Note: In your implementation, information about **h1** such as IP address and server port numbers should not be hard coded in the programs running on hosts **h2** and **h3**.*

[70]

2. In the above exercise, all the four server are active all the time. Create a simple *TCP inetd daemon* on **h2** which will create instances of these servers based on demand. Note that you may need to modify the servers you have already created on **h2** to work with the *inetd daemon*.
Hint: You can find some pointers at inetd daemon

[30]