

Homework #6 (20 points)

Due, Wednesday, April 20

On the Sun computer which calls itself **brock** or, more formally **brock.cs.unc.edu**, there is a server running at port number 1717. The “state” of this server is a single integer x . When this server receives a datagram y consisting of one to six digits and absolutely no noxious characters such as letters or innocuous character such as blanks, tabs, or nulls, it interprets the datagram as a positive integer and sends a response of the form $x+y=z$, where $x + y \equiv z \pmod{1000000}$, and updates its state to be z . For example, if the server state is 876893 and the server is sent the datagram 303001, its response will be 876893+303001=179894. If the server is sent an inappropriate message, *e.g.*, R2D2, its response will be ?R2D2.

Your assignment is to write a program that will send a few datagrams to this server and then receive and print the server’s first five responses.

The **napoleon** file `/unc1/brock/adder.c` contains the source for the server. This program was written for the Sun operating system so some of its **include** directives may not work properly on **napoleon**.

Yet more rules

You may do this assignment as part of a team of up to three people.

No member of the team is allowed to generate code except in the presence of his/her team members.

No team may turn in its assignment until all members of the team understand the solution.

No team may contain more than one C/Unix guru unless the team is composed solely of Evening College students.

Important hint is coming

Spend your first two days thinking about the assignment. On Wednesday, April 13, you will be given a list of the **include** statements and other stuff that will aid you in fighting DG/UX.