

Kerry Ojakian's CSI 35 Class

Class Assignment #4

Name(s):

Instructions: Work in a group of **at most 3 students** in class (and at home if required). Hand in **one** assignment for your group; write each group member's name (first and last name) above.

You must show your work and justify your answers to get full credit!

1. Consider this function defined on non-negative integers: $D(n)$ = the digit in the ones spot when n is written in base 10. For example, $D(258) = 8$. Do the following:

- (a) Write down a recurrence (along with base cases) for the function D .
- (b) Write a recursive program for the function D in SathMath only using basic arithmetic of addition and subtraction (in particular, no use of mod, division, or multiplication).

Put this in one of the group members Dropbox folder along with group member names, and email whose Dropbox folder it is in.