DISCUSSION:

The works according to provided specifications.

The main difficulty was to understand what was given to us. The statement gave us a lot of code already written. Sometimes we used parts of code that we did not understand at the moment. To make our system more useful we can change our adder so that it adds Two's complement. In this case, we cant use a carry-in.

CONCLUSION:

Today we learned to design an adder.

More than that we have consolidated our knowledge. We can now manipulate variables, create systems.

QUESTIONS:

Is it possible for two 4-bit numbers and a carry-in to result in a number too big to represent using 4 sum bits and a carry-out bit ?

The bigger number you can have by adding two 4-bit numbers and a carry-in is 1 1111. 1 1111 in 4 sum bits and a carry-out bit. So there is no number too big to represent using 4 sum bits and a carry-out bit.