

CIS 351 Sample ADD3 Problem Solutions

Thu 6th Jan, 2022

ADD3: Carry Lookahead Adder

- (a) Sketch the lookahead logic for the carry into column 4. (Columns are indexed beginning with 0.)
I'll check these individually.
- (b) Suppose one were to make a mistake and accidentally use an **AND** gate in place of the rightmost **OR** gate for the carry lookahead logic. Describe the inputs A and B that would produce a value of 1 on the carry out.

The inputs must be all 1s (e.g., $A = 1111$ and $B = 1111$)