## CDA 3103 Worksheet-8: Adders

Complete the truth-table for the Half-Adder circuit

| A | B |  | Carry | Sum |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

You should recognize the Carry and Sum as basic logic functions. What are they?
Carry: $\qquad$ Sum: $\qquad$
Hence, the Half-Adder implementation shown in this logic diagram:


Show how to connect two Half-Adders to form a Full-Adder (You will need an OR-gate)
Hint: $A+B+C_{i n}=(A+B)+C_{i n}$

