



Faculty of Engineering and Technology
Department of Electrical and Computer Engineering

ENCS 2110

EXP 2 Pre-Lab: Comparators, Adders, and Subtractors

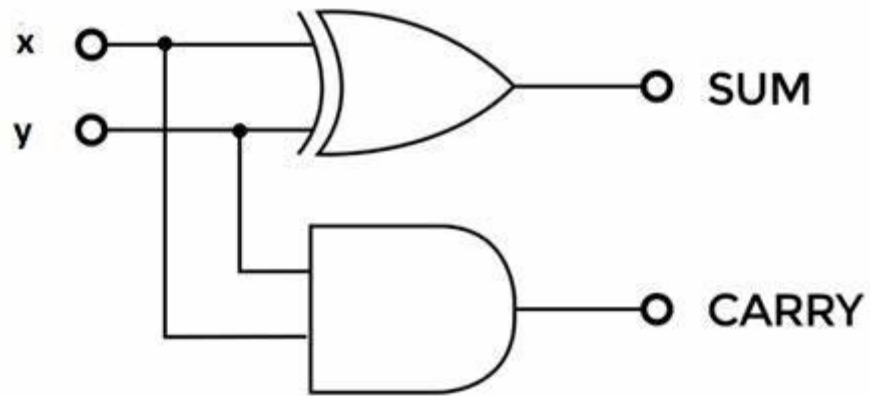
Student's name: Anas Al Sayed

Student's No.: 1221020

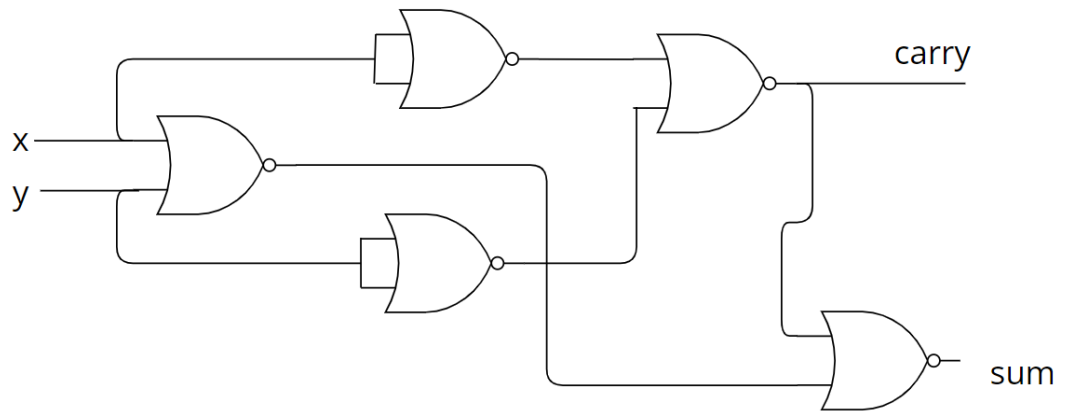
Section: 10

Instructor: Hanya Radwan

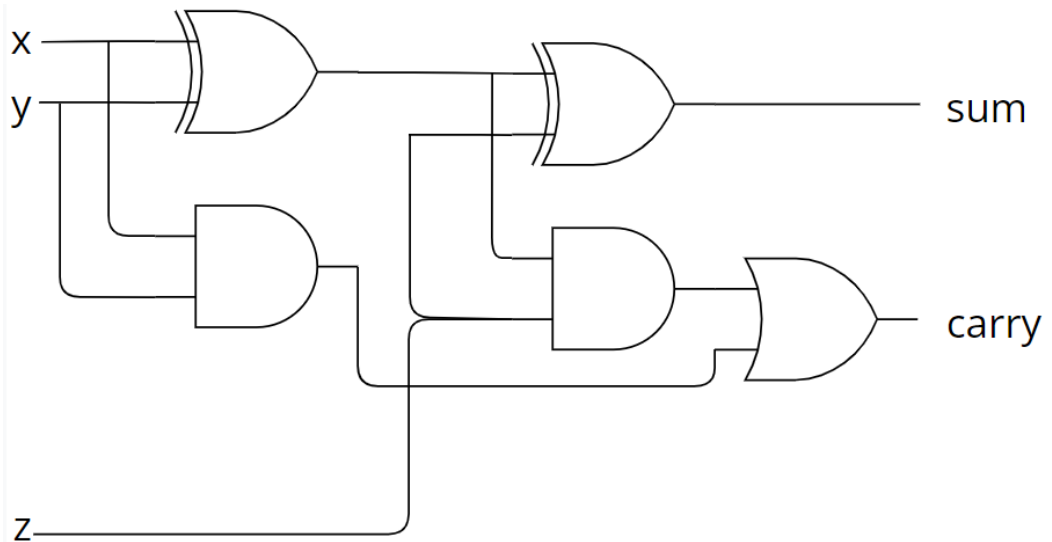
✓ Build half adder using basic gates.



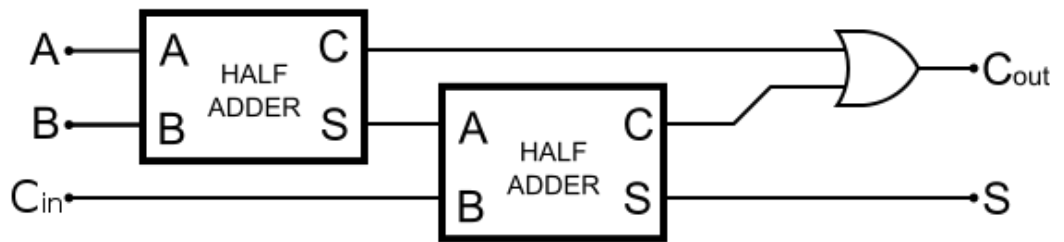
✓ Build the above circuit using universal gates.



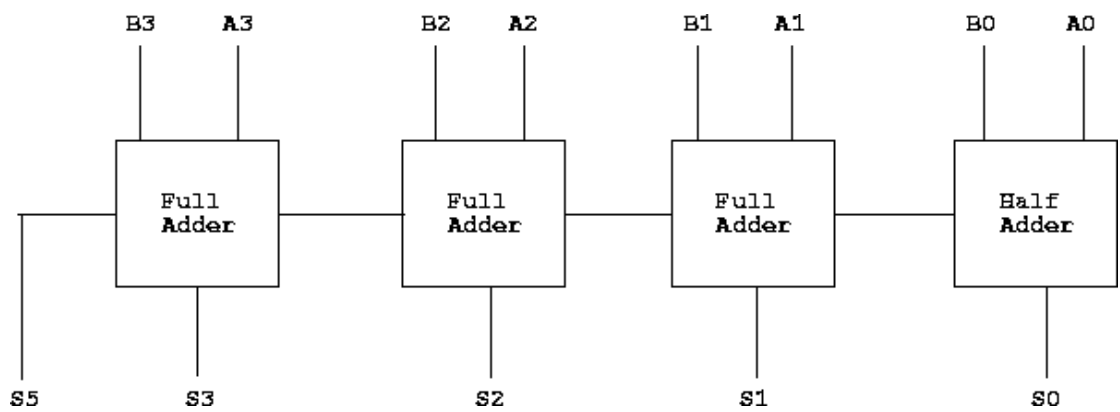
✓ Build a full adder using basic gates.



- ✓ Build a full adder using half adder and another gate.



- ✓ Build a 4-bit adder using a full adder.



- ✓ Build a 4-bit subtractor using basic gates.

