

Name: \_\_\_\_\_

Lab Section: \_\_\_\_\_

**ECE 2140**  
Experiment 10 Prelab  
Programmable Logic Devices  
Half Adder

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**1. Read through Experiment 10.**

2. Look up the data sheets for the parts used in the experiment.
  - a. Find the following specifications for each IC

<b>Recommended (Nominal) Operating Voltages</b>	
<b>GAL16V8</b>	
$V_{CC}$	
$V_{IL}$	
$V_{IH}$	
$V_{OL}$	
$V_{OH}$	

**3. Find the Boolean expressions for the Sum and Carry outputs:**

X	Y	Sum	Carry
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

**4. Draw the schematic for these 2 Boolean expressions:**