Name: _____   Lab Section: _____

ECE 2140
Experiment 10 Prelab
Programmable Logic Devices
Half Adder

Modified for Spring 2012

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. Do not worry about the pin layout for this chip yet; we will discuss that in lab.

Recommended (Nominal) Operating Voltages	
	GAL16V8
V_{CC}	
V_{IL}	
V_{IH}	
V_{OL}	
V_{OH}	

3. **Find the simplified 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 gate-level schematic for these 2 Boolean expressions:**