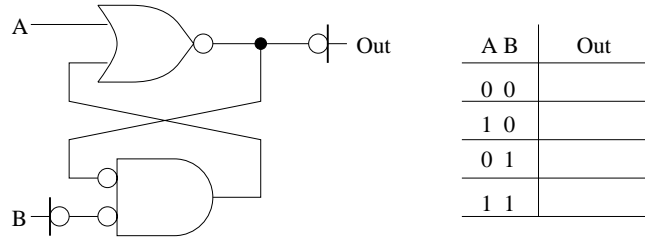
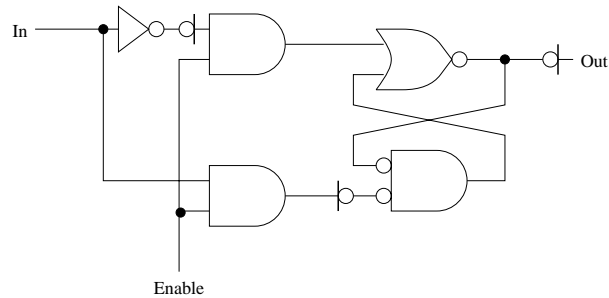


## Understanding Transparent Latches

**Part A** Complete the truth table to describe the circuit below:

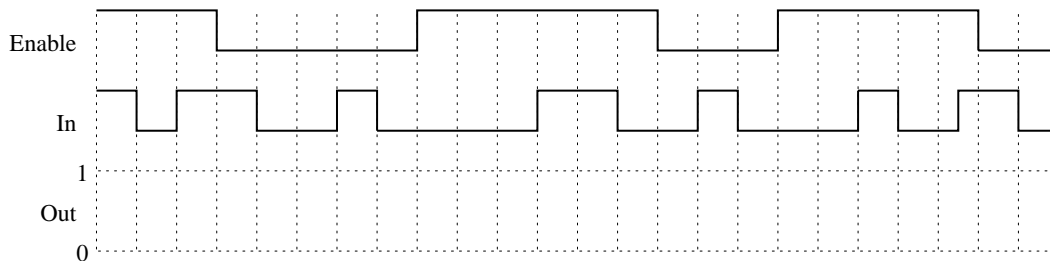


**Part B** Now consider a transparent latch based on this circuit (show below). How many transistors are used in this implementation?



\_\_\_\_\_ transistors

**Part C** Complete the timing diagram for the latch output based on the specified inputs.



**Part D** Design a latch using two 2-input OR gate, two 2-input NAND gates and two inverters. Be sure to label the signals In, Out, and Enable.