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1. What is the approximate voltage value at R when the switch in Figure 1 is open? What is the voltage when the switch is closed?

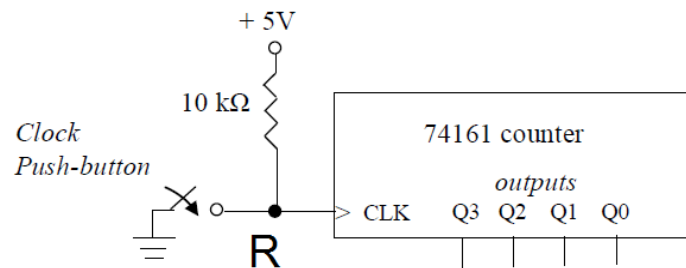


Figure 1: Switch Circuit

Open: $V_R = 0\text{V}$ Closed: $V_R = 5\text{V}$

2. For the cross-coupled NAND RS latch (R, S active low) shown in Figure 2, complete the truth table and identify what state (set, reset, hold, and indeterminate) the latch is in for each S and R value:

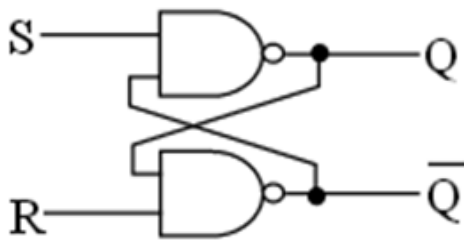


Figure 2: NAND RS Latch

Table 1: RS Latch Truth Table

S	R	Q^+	State
0	0	X	indeterminate
0	1	1	set
1	0	0	reset
1	1	on	Hold