

Implement the logic function indicated by the following truth tables.

1.

INPUTS		OUTPUT
A	B	Z
0	0	0
0	1	1
1	0	0
1	1	0

2.

INPUTS		OUTPUT
A	B	Z
0	0	0
0	1	1
1	0	1
1	1	0

3.

INPUTS		OUTPUT
A	B	Z
0	0	1
0	1	1
1	0	0
1	1	1

4.

A	B	C	Z
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	0

5. Implement a 3-way light switch system using digital logic. A switch at each door as shown below is supplied. Also, a transistor AND light bulb has been provided that will work properly with the logic designed.

* You need only design the digital logic portion.

