

Computing

Lesson 8: Logic Gates

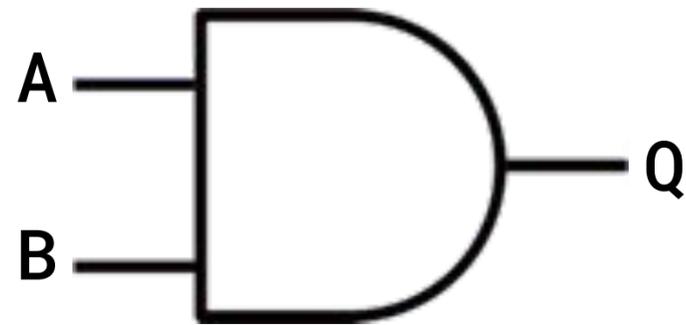
Computer Systems

Mac Bowley



The three fundamental gates: AND

Complete the truth table for the **AND** gate



Inputs		Output
A	B	Q
0	0	
0	1	
1	0	
1	1	



The three fundamental gates: OR

Complete the truth table for the **OR** gate

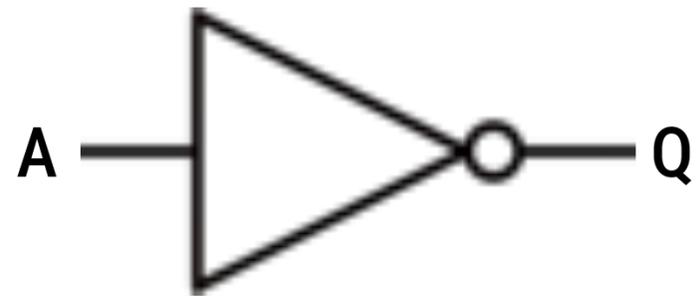


Inputs		Output
A	B	Q
0	0	
0	1	
1	0	
1	1	



The three fundamental gates: OR

Complete the truth table for the **NOT** gate



Inputs	Output
A	Q
0	
1	



Putting it all together - Task 1

**“The light will turn on if
the switch is turned or
if I clap.”**

1. Identify the **inputs** in the expression
2. Identify the **output**
3. Identify the **logical operator**
4. Draw the **logic diagram**
5. Create a **truth table**



Putting it all together - Task 2

**“The buzzer will not
turn on if the battery is
charged.”**

1. Identify the **inputs** in the expression
2. Identify the **output**
3. Identify the **logical operator**
4. Draw the **logic diagram**
5. Create a **truth table**

