Topic 10: Boolean Logic

Keyword sheet - Cambridge IGCSE Computer Science 0984. Tick each term once you can define it from memory.

Keyword	Definition	Know it?
Logic gate	Electronic component that takes one or more binary inputs and produces a single binary output.	
NOT gate	Output is the inverse of the input.	
AND gate	Output is 1 only if both inputs are 1.	
OR gate	Output is 1 if at least one input is 1.	
NAND gate	NOT AND: output is 0 only if both inputs are 1.	
NOR gate	NOT OR: output is 1 only if both inputs are 0.	
XOR gate	Exclusive OR: output is 1 if the inputs are different.	
Truth table	Table showing the output for every possible combination of inputs; n inputs gives 2^n rows.	
Logic circuit	Diagram of logic gates connected to produce an output from several inputs.	
Boolean expression	Statement using AND, OR and NOT that describes a logic circuit, e.g. X = (A AND B) OR C.	
Logic from a problem statement	Turning a written scenario into a Boolean expression, logic circuit and truth table.	