

08.1 Complete the truth table for the AND logic gate

[1 mark]

A	B	A AND B
0	0	0
0	1	0
1	0	0
1	1	1

08.2 A logic circuit is being developed for an audio advert in a shop that plays automatically if a customer is detected nearby.

- The system has two sensors, A1 and A2, that detect if a customer is nearby. The audio plays if either of these sensors is activated.
- The system should only play if another audio system, S, is not playing
- The output from the circuit, for whether the advert should play or not, is Q

Complete the logic circuit for this system

[3 marks]

The required diagram is

A1 OR A2 [1 mark] OR [1 mark] NOT S [1 mark]

Suitable diagram with points joined is required