

6 A company has multiple sites in different cities.
The company has drivers who deliver products to customers. Each driver can connect to the company's WAN (Wide Area Network) whilst out of the office using a smartphone.

(a) State **two** ways that a WAN is different to a LAN (Local Area Network).

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(b) The smartphones use the cell phone network to connect to the WAN.

Explain how data is transmitted using the cell phone network.

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(c) Devices that connect to the WAN have an IP address.

Complete the following description of IP addresses by writing the missing words.

IPv4 is displayed as four groups of 8-bit numbers separated by

Each IPv4 address is 32 bits.

IPv6 is made of eight groups of 4 numbers separated by colons.

Multiple consecutive groups of can be replaced with a double colon.

Each IPv6 address is bits.

A IP address can change each time the computer connects to a network.

A IP address can only be accessed by other devices in the same LAN and is assigned by the router within the LAN.

[6]

(e) Describe the role of a switch in a network.

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