# 2 Communication – Part 2 —Answers

## Answers

**2.1** To uniquely identify a device on a network so data can be sent to it.

**2.2** The internet is the global network (the hardware + TCP/IP); the World Wide Web is a *service* of linked pages that runs over it. (The web is part of the internet, not the whole of it.)

**2.3** (a) a switch forwards a message only to the port of its destination device; (b) a router connects a LAN to another network (the internet) and forwards data between them.

**2.4** It looks up the domain name and returns the matching IP address, so the browser can connect to the correct server.

**2.5** Wired: faster / more reliable / more secure. Wireless: no cables / devices can move freely. (One of each.)

**2.6** People can remember meaningful names (like `example.com`) instead of long strings of numbers; and if a server's IP address changes, the same name still works once the DNS is updated.

**2.7** Advantage: customers can connect with no cables and move around freely. Risk: wireless signals are easier for others nearby to intercept, so data is less secure.