2 Data packets – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary

Write each word three times.

English	**Write it 3 times** (English)		
packets			
header			
payload			
trailer			
serial			
parallel			

Recall

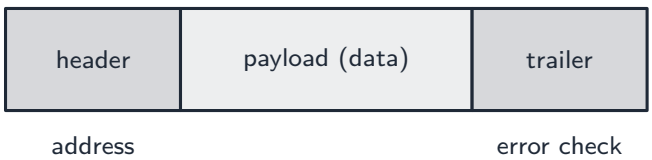
Data is sent across a network in small **packets** .

New ideas

Read these first, then do the Practice.

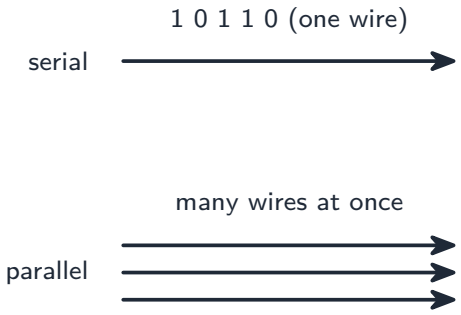
■ 1 A data packet

A packet has three parts:



- the **header** holds the address and packet number;
- the **payload** is the actual data;
- the **trailer** holds an error check.

2 Serial and parallel



- **serial** sends bits one at a time, down one wire;
- **parallel** sends several bits at once, down many wires.

Watch out: a packet's three parts have set jobs – the **header** holds the address and packet number, the **payload** is the data, the **trailer** holds the error check. **Serial** (one wire, one bit at a time) suits long distances; **parallel** is faster but only over short ones.

Practice

Try these in order.

2.1 What is a *packet*? [1]

2.2 Name the three parts of a packet. [2]

2.3 What is held in the header of a packet? [1]

2.4 How is serial transmission different from parallel? [2]

2.5 Which is usually used over long distances – serial or parallel? [1]

2.6 Challenge. Explain why serial transmission, not parallel, is used to send data over a long distance such as the Internet. [2]