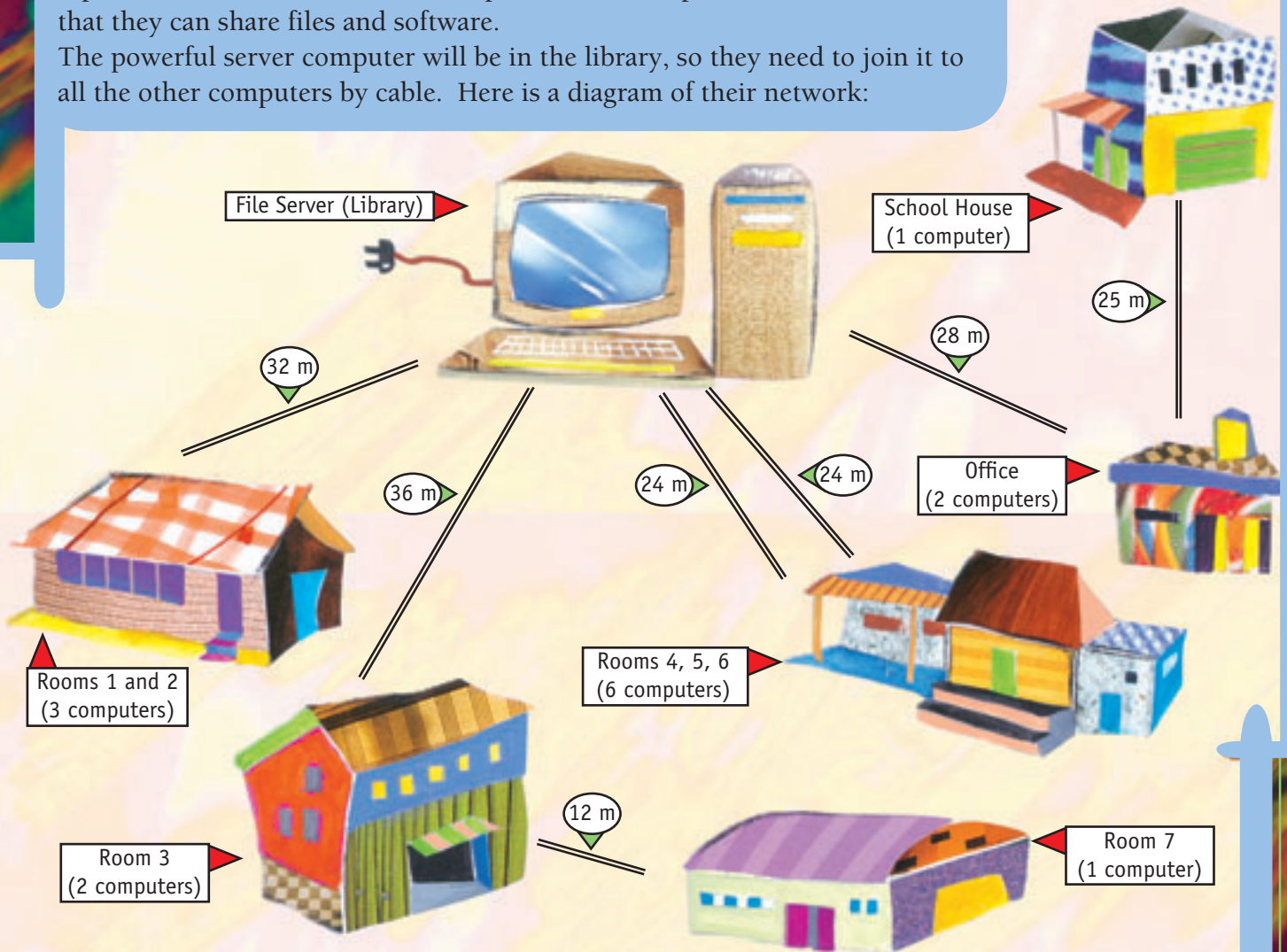# Network Nightmare

You need ☑ tape measures ☑ metre rulers
☑ calculators ☑ a classmate

Activity

Pipinui Point School has decided to put all their computers on a network so that they can share files and software.

The powerful server computer will be in the library, so they need to join it to all the other computers by cable. Here is a diagram of their network:

File Server (Library) ▶

School House (1 computer) ▶

25 m ▷

28 m ▽

32 m ▽

36 m ▷

24 m ▷   ◁ 24 m

Office (2 computers) ▶

◀ Rooms 1 and 2 (3 computers)

Rooms 4, 5, 6 (6 computers) ▶

12 m ▽

Room 3 (2 computers) ▶

Room 7 (1 computer) ◀

Each computer cable can link two, three, or four computers but no more than that. Computer cables are bought by the metre and are very expensive, so the school has tried to use as little cable as possible.

1. How much cable will Pipinui Point School use?

2. With a classmate, make up a networking plan for all the computers in your school.

3. Measure the distances and find the cheapest way to network all the computers in your school.

Solving problems involving lengths in metres