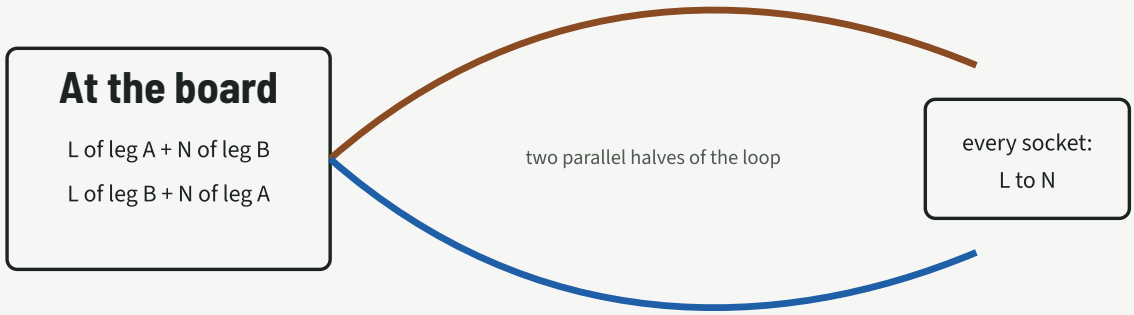
RING FINAL PRACTICAL, STEP 2: FIGURE OF EIGHT, LINE TO NEUTRAL

WHY DIVIDE BY FOUR?

Join the **line of one leg to the neutral of the other**, and the other line to the other neutral. Opposite ends — that cross-connection is the figure of eight. Then test between line and neutral at **every socket** on the ring, with a plug-in adapter and the socket switched **on**.



expect $(r_1 + r_n) \div 4$ · the same at every socket

Cross-connected, the loop splits into two parallel halves, each half of $r_1 + r_n$, so the reading is a quarter of $r_1 + r_n$ — and it should be the same at every socket.

- Switch the socket off first and press test: open circuit. On: a reading. That proves the switch, too.
- A **spur** reads a little higher than the ring sockets — it's extra cable.
- A **fused connection unit** with no socket: take the plate off and probe the **supply-side** line and neutral terminals.

> **Is the cross-connection right?**
> If the readings **rise** towards the middle of the ring and **fall** again towards the other end, you've joined line and neutral of the **same** leg, not opposite legs. On twin and earth you can see which belong together; on singles in conduit you can't, so mark the legs.

Step 2 isn't recorded — there's no column for it. That doesn't make it optional. It's a step towards proving polarity, and it finds faults nothing else will (section 5).

Guidance Note 3 · 2.6.6 step 2

Free section from Sparky Study Notes. The full Level 3 notes, 1,463 practice questions and the video lessons: sparkystudynotes.co.uk