Day 47 · Trade a ten, keep the amount

Try: “Can you show it another way?”

Adult teaching purpose: Standard/nonstandard partitioning and zero role, two/three digits; AC9M2N02.

1 · Prepare and invite. Use drawn bundles/directing or virtual/paper units labelled100,10,1. Ten ones equal one ten; ten tens equal one hundred. These are named value tokens, not unequal physical pieces assumed to measure a quantity. Ordinary405 and236 are the new tasks; check children understand a bundle before using nonstandard exchanges. No tiny-object handling required.

2 · Model a different small example. Model unrelated152:1 hundred5 tens2 ones =100+50+2. Exchange one ten:1 hundred4 tens12 ones =100+40+12, same152. Explain that12 ones is a valid nonstandard partition even though the numeral152 has2 in its ones position. Recount value to check, rather than concatenate token counts.

3 · Guide one attempt. Together show405 as4 hundreds0 tens5 ones and as3 hundreds10 tens5 ones. Read zero as no tens in the standard form. Check300+100+5=405. Do not tell the child that all possible partitions are required; one valid alternate form and a reason can be enough.

4 · Your own useful turn. Choose236 or an own adult-checked three-digit numeral. Show/direct its standard form and a different valid form, then demonstrate why total value stays equal. For236 one alternate is1 hundred13 tens6 ones; another2 hundreds2 tens16 ones. Child may discover another. Optional physically moving/drawing follows the child's wanted route; explain/dictate is equally usable mathematical evidence.

5 · Observe and record. Keep the actual choice, representation, method and meaning before a correction. Distinguish a source fact, child decision, adult reading/scribing/handling and mathematical hint. Observe value preservation rather than model resemblance. If an exchange increases value, re-teach ten ones↔one ten on unrelated34. If zero is read as “nothing anywhere”, contrast204 and240. If secure, ask for another legal exchange and a check using place value. Do not mark nonstandard forms wrong merely because a count exceeds9; numeral-place digits and bundle counts serve different representations.

6 · Teach next and revisit. Choose just the applicable next teaching in step5, on a different ordinary source; then offer a new question after an actual interval. Record what happened rather than completing all branches. Read the three participation choices (../ROUTES.md#day-47); parent offer (../family/home-47.md) is optional. A short useful attempt can replace a long sheet. Full source/rights and curriculum evidence stay in the adult mapping (../curriculum/MAPPING.md) and notice (../legal/NOTICE.md).

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