

Grade 2 • Unit 2 • Assessment Guide

Adding and Subtracting within 100

For the Parent or Teacher — What to look for

Unit 2 is about strategies based on place value — composing/decomposing tens. Look at whether the student is using these strategies thoughtfully or grinding through algorithms they don't fully understand.

Part A — Quick Facts within 100

- Are they using place value ($47+25 \rightarrow 40+20+7+5 \rightarrow 60+12 \rightarrow 72$)?
- Or counting up / down by ones (which is OK on a small fact but slow)?
- Watch for: errors on the "decompose a ten" facts ($50-26$, $73-38$). This unit specifically targets that skill.

Problem 1 — Show TWO ways for $38 + 26$

- Strong: one place-value way ($30+20+8+6$) and one make-a-ten way ($38+2+24$ or $40+24$).
- Weak: same strategy twice with different handwriting; counting on fingers.
- ★ Flexibility across strategies is the goal of this unit.

Problem 2 — $63 - 28$ with picture + numbers

- $63-28$ requires decomposing a ten (the key Unit 2 skill).
- Strong drawing: 6 tens & 3 ones, with one ten broken into 10 ones to make 5 tens & 13 ones; then 2 tens & 8 ones removed.
- Watch for the classic error: subtracting smaller-from-larger digit-wise (e.g., $3-8$ "can't" so $8-3=5$, $6-2=4$, answer 45). If you see this, the student doesn't yet understand decomposing a ten.
- The numeric work should show some attempt to break apart numbers, not just digit-by-digit subtraction.

Problem 3 — Mai's method explained + applied

- The explanation reveals whether they understand that $50-28 = 50-20-8$ (subtracting in two steps by place value).
- Strong explanation: "She subtracted the tens first, then the ones." OR "She broke 28 into $20 + 8$."
- Weak: "She did some math" / can't articulate.
- Then they apply it: $45-17 = 45-10-7 = 35-7 = 28$. If they get the answer but their work doesn't follow Mai's structure, they may not have understood her method.

Problem 4 — Two-step story ($47 - 18 + 25$)

- Correct answer: 54.
- Watch: do they handle both steps? Some students do only one operation.
- Strong: clear two-step work shown — either as two equations or with a diagram.
- Weak: combines or skips operations.

Problem 5 — Bigger Unknown Compare ($36 + 18$)

- Answer: 54.
- Look for: a tape diagram. "Sam = Pat + 18." If they draw it, they understand the structure.
- Watch for: subtracting ($54-18$) — keyword confusion.

Problem 6 — Take From, Change Unknown (82 – 35)

- Answer: 47.
- Some students might write $82 + 35$ (don't fully parse the situation).
- Strong: clear that they realized the unknown is the amount removed.

Problem 7 — Han's error (52 – 27)

- Han subtracted smaller from larger in each column. Classic mistake.
- Strong explanation: "You can't subtract 7 from 2, you need to take a ten from the tens place."
- Correct answer: 25.
- If they don't catch this error, they may make the same mistake on their own work elsewhere.

Problem 8 — Strategy choice (30 + 47)

- There's no wrong choice — what matters is the JUSTIFICATION.
- Strong: "Mental math because $30 + 47$ is easy — I just add 30 to the 4 tens to get 70, then add 7."
- Weak: "Mental math because it's fast" (with no math reasoning).
- Answer: 77.

Problem 9 — Write a story for 65 – 38

- Should be a coherent subtraction story (take-from, compare, etc.).
- Look for: numbers used correctly, scenario makes sense.
- Weak: doesn't actually subtract; numbers swapped ($38 - 65$).

Problem 10 — Estimation (47 + 28 vs 62 + 41)

- $47+28 \approx 75$; $62+41 \approx 103$. (b) is much closer to 100.
- Strong: "I rounded — $50+30=80$ is far from 100, but $60+40=100$ is right there."
- Weak: just guesses; or computes exactly without reasoning about distance to 100.

— end —