

Grade 2 • Unit 5 • Assessment Guide

Numbers to 1,000

For the Parent or Teacher — What to look for

Unit 5 extends place value to hundreds and 3-digit numbers. The diagnostic is whether the student sees place value as a system of grouping (10 ones = 1 ten, 10 tens = 1 hundred), not just a position to memorize.

Problem 1 — Write 462 three ways

- Words: four hundred sixty-two.
- Expanded: $400 + 60 + 2$.
- Base-ten: 4 hundreds, 6 tens, 2 ones.
- Watch: common writing errors ("four hundred and sixty-two" — OK, "four-six-two" — weak).

Problem 2 — 374 in three different decompositions

- (a) 3 hundreds, 7 tens, 4 ones.
- (b) 37 tens, 4 ones. ← THE diagnostic question.
- (c) 374 ones.
- Strong: gets (b) right. Means they understand that 37 tens = 370.
- Weak: writes 7 tens for (b) (only looking at the tens digit). This is a very common error — it means they haven't internalized that hundreds are made of tens.

Problem 3 — 318 multiple ways

- Examples that work: (a) 3H 1T 8O, (b) 2H 11T 8O, (c) 3H 0T 18O, (d) student choice (1H 21T 8O, 0H 31T 8O, etc.).
- Strong: shows real flexibility — uses different decompositions per row, all equal 318.
- Weak: just repeats the standard decomposition (3H 1T 8O) on every row.

Problem 4 — How many tens in 530?

- Answer: 53. ★ Same diagnostic as problem 2(b).
- Strong explanation: "530 = 500 + 30 = 50 tens + 3 tens = 53 tens."
- Weak: answers 3 (only looks at the tens digit). Reveals that hundreds-as-tens hasn't clicked.

Problem 5 — Compare 3-digit numbers

- $387 > 378$, $601 < 610$, $245 < 254$.
- ★ The explanation matters. Strong: "Both have 3 hundreds and 7 tens, so I compared the ones — $7 > 8$ is false, but 387 has 7 tens 7 ones vs 378 has 7 tens 8 ones, so... actually 378." If they confuse 387 and 378 they need more practice with reading place values left to right.
- Strong reasoner: compares hundreds first, then tens, then ones.

Problem 6 — Order 506, 56, 560, 605

- Correct order: 56, 506, 560, 605.
- Common error: ordering by leftmost digit only (would put 506, 56, 560, 605 — keeping 56 in wrong position because they look at the 5 first).
- ★ Strong: recognizes 56 is much smaller (only 2 digits) than the others.

Problem 7 — Locate 425 on 0-1000 line

- Should be between 400 and 500, closer to 400.
- Strong: "425 is just past 400, about a quarter of the way to 500."
- Weak: puts it in the middle (500), or close to 1000.

Problem 8 — Is Mai right that $99 > 102$?

- Mai is WRONG. Strong: "You compare by the number of digits first — 102 has 3 digits, so it has at least 100. 99 only has 2 digits, so it's less than 100."
- Weak: "no, 102 is bigger" without explaining the digit-count rule.

Problem 9 — What does 3 mean in 530, 305, 53?

- In 530: 3 tens = 30.
- In 305: 3 hundreds = 300.
- In 53: 3 ones = 3.
- ★ THE bedrock of place value. If they say "three" for all three, they don't understand positional notation.

Problem 10 — Skip count by 100

- 300, 500, 700, 800, 900.
- Reflection: "The hundreds digit changes by 1; the tens and ones stay 0."
- Strong: notices the pattern and articulates it.
- Weak: completes the count but can't say what's changing.

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