

Breaking Open a Thousand

ANSWER KEY

Year 3 Maths · Term 4, Week 1 Outcomes: MA2-RN-01 · MAO-WM-01

 **Tutor only.** Never hand this to a student or parent.

How to mark this

Marks are allocated per step, not per answer.

Code every error as you mark. The code goes in the margin, and the student copies it into their Error Log at the end.

THE UNIT IS PART OF THE ANSWER

1 400 = "14" is not the same answer as "14 hundreds".  **Take the mark** if the question asked "*how many hundreds*" and the box says *hundreds* — but **say the unit back to them every time**, because the whole term's commonest error is answering with a bare digit.

THIS IS NOT A SUBTRACTION WORKSHEET

If a student sets B1 out vertically with crossings-out and little 1 s, the answer is still right and it is not this week's method.  **Do not mark it wrong and do not teach the algorithm.** MA2-AR-01 is next week. **Say: "that's the taking-away method. Today I want to know what the number IS."**

Section A — Ten hundreds make a thousand

A1 (3 marks)

Step	Mark	Watch for
10 hundreds	[1]	—
100 tens	[1]	 The one they miss. "10 tens" is the commonest wrong answer — they have applied the hundreds step twice
1 000 ones	[1]	Usually right, and often guessed from the number itself rather than worked out. Ask "how do you know?"

Answer: 1 000 = 10 hundreds = 100 tens = 1 000 ones.

 If they got 10 and 1 000 and missed 100 tens, that is the middle rung and it is where the whole ladder in Part 2 lives. **Do the flats again: "how many tens in one flat? ...so how many in ten flats?"**

A2 (3 marks)

Step	Mark	Watch for
(a) 14	[1]	🔴 "4" is the week's main error — the hundreds digit , not the number of hundreds
(b) 20	[1]	★ The hardest of the three , because the hundreds digit is 0 . "None" is the digit answer; 20 is the number answer
(c) 36	[1]	—

🔴 (b) IS THE ONE TO SPEND A MINUTE ON

A student who answers "0 hundreds" for 2 000 has been consistent — they gave the digit, as they did in (a). **Do not treat it as a new error.** "Put out two thousand in flats. Count them." → **20**.

Section B — Getting past a zero

B1 (4 marks)

Step	Mark	Watch for
(a) 2 999	[1]	—
(b) 5 099	[1]	★ A zero appears that wasn't there. 5 100 → most write 5 099 correctly and cannot explain it
(c) 3 999	[1]	⚠️ 4 999 means they took one from the wrong column
(d) 2 010	[1]	🔴 2 0010 is common and is a recording error, not a maths error — the thinking was right. See the note

🔴 2 009 → 2 0010 IS NOT A PLACE VALUE FAILURE

They have correctly worked out that nine ones plus one is a ten, and then written the ten next to what was already on the page. ⚠️ Marking this as "doesn't understand place value" is wrong and unhelpful. The fix is the grid, not an explanation: "read me what you've written. ...Now put it in the columns." Code MU , not ME .

B2 (2 marks)

Step	Mark	Watch for
(a) 3 000, 3 010	[1]	Both needed. ★ The pause before 3 000 is normal and is the lesson working
(b) 4 000, 4 100	[1]	Both needed. ⚠️ 3 1000 — same recording error as B1(d)

B3 (2 marks)

Step	Mark	Watch for
Names the empty columns — there are no ones and no tens to take one from	[1]	Accept " <i>the columns are empty</i> ", " <i>there's nothing there to take</i> "
Names the regrouping — so a thousand is opened into hundreds, then tens, then ones	[1]	Accept any version of " <i>you swap a thousand for ten hundreds</i> ". ⚠️ " You borrow " earns it if they can say what was borrowed from what

Answer: 4 000 has **nothing in the ones, tens or hundreds columns**, so there is nothing to take one from. You **open a thousand into 10 hundreds, a hundred into 10 tens, and a ten into 10 ones** — and *then* take one. **The number was never smaller until the last step.**

★ THE ANSWER THAT SHOWS IT LANDED

"You have to swap before you can take."

A student who says that has the idea in a form that will still work in Year 6. ⚠️ And a student who writes "*because 3 999 comes before 4 000*" has restated the question — no mark, and ask "*why does it?*"

Section C — The same number, written differently

C1 (4 marks)

Step	Mark	Watch for
(a) 15 hundreds	[1]	—
(b) 30 hundreds	[1]	⚠️ Same shape as A2(b) — the digit is 0
(c) 240 tens	[1]	🔴 24 is the error: they have stopped at hundreds. " <i>How many tens in one hundred? ...so in twenty-four hundreds?</i> "
(d) 10 hundreds	[1]	★ The most important single box on the sheet

★ (d) IS PART 2's LADDER, FIRST LINE, WITHOUT THE FLATS

3 000 = 2 thousands + 10 hundreds. A student who writes this unaided has the week. ⚠️ **The wrong answer to watch is 0** — they have read it as "*2 thousands and what's left in the hundreds column*", which is the standard partition and is the thing this question exists to break.

C2 (2 marks)

Step	Mark	Watch for
2 900 near the right-hand end, 2 090 near the left	[1]	Both, or no mark. Rough position is fine — this is not a measuring task
2 090 has 0 hundreds	[1]	⚠️ "9" means they read the 9 and stopped

🔴 2 090 PLACED NEXT TO 2 900 IS THE MOST DIAGNOSTIC ERROR ON THE WORKSHEET

It is A2(a)'s error again — reading digits instead of size — one week into the term. The 9 is doing completely different work in the two numbers. **Do not just correct the position:** "how many hundreds in 2 090 ?" → **none** → "so where does it go?"

Error codes to expect on this worksheet

Likely error	Code	If you see it 3x
Gave the digit instead of how many	ME	"That's what's in the column. I asked about the whole number. Put it out in flats"
Stopped at hundreds when asked for tens (C1c)	ME	"How many tens in one hundred? ...so in twenty-four of them?"
2 0010 — right thinking, wrong recording	MU	The grid, not an explanation. "Put it in the columns"
Thought the number shrank while regrouping	MU	"Count it. Is it still three thousand?" — ask at every line
Regrouped when it wasn't needed (3 405)	ME	"You're right. Was there anything in the ones column? Look first"
Set B1 out as a column subtraction	none	"That's the taking-away method. Today: what IS the number?" Do not teach it

Total: 20 marks

Marking bands for this worksheet

17–20 🟢	Secure, and check C1(d) specifically — it is the one that separates knowing the ladder from having watched it. Extension: ★ "what comes just before 10 000 ?" → 9 999 , the same idea one column further. Or "write 4 000 as thousands, hundreds, tens and ones" → 4 · 40 · 400 · 4 000 . ⚠️ Not six digits, not decimals, not renaming upward — that is Year 4 Week 1
12–16 🟡	Usually A and B right, C thin . They can get past a zero when the question tells them to and cannot yet rename a number cold. That is the normal Year 3 shape at Week 1 and it is what Weeks 2 and 3 build. Do three more C1-style boxes out loud

7–11 	Usually the digit-instead-of-number error running right through — A2(a), C1(c), C2. It is one error, not three. Re-teach with the flats and insist on the unit in every spoken answer
Below 7 	The thousand has not landed as a unit . Stay in hundreds and tens: " <i>how many tens in 240 ?</i> "  This is Stage 1 B — Year 2's content point (<i>renaming three-digit numbers</i>). Say so on the file in those words. Working there is correct placement, not a demotion, and Years 2 and 3 are different stages , so there is a real place to go back to