

Breaking Open a Thousand

Name

Class

Date

Time: 15 minutes. No more. If it's taking longer, stop and write down where you got stuck — that note is more useful to your teacher than a finished sheet.

Say the unit every time. *Eighteen hundreds*, not *eighteen*. Answers are at the end.

Section 1 — Today's work

1. How many hundreds are in the *whole* number?

(a) **1 800** = hundreds (b) **2 600** = hundreds

(c) **4 000** = hundreds

2. Fill in the gaps.

1 000 = hundreds = tens = ones

3. Write the number.

(a) Just **before** **2 000** =

(b) Just **after** **4 099** =

(c) Just **before** **8 100** =

4. Keep counting by tens: 1 970, 1 980, 1 990, ,

5. Keep counting by hundreds: 2 700, 2 800, 2 900, ,

Section 2 — The same number, written differently

6. **2 000** = 1 thousand + hundreds

7. **3 500** = hundreds = tens

Section 3 — With a grown-up (*two minutes*)

8. Say this out loud to someone at home:

"Three thousand is two thousands, nine hundreds, nine tens and ten ones — and it's still three thousand."

Then ask them: **"what comes just before 3 000?"** and tell them **why** three digits change.

Who did you tell?

Section 4 — Stretch

Optional. Have a go even if you don't finish it.

9. What comes just before **10 000**?

How many digits changed this time?

10. Write **4 000** four different ways:

thousands ·

hundreds ·

tens ·

ones

What do you notice about that list?

NSW Mathematics K–10 Syllabus (2022) · Stage 2

MA2-RN-01 applies an understanding of place value and the role of zero to represent numbers to at least tens of thousands

MAO-WM-01 develops understanding and fluency in mathematics through exploring and connecting mathematical concepts, choosing and applying mathematical techniques to solve problems, and communicating their thinking and reasoning coherently and clearly

Practising at home? Online practice for Years K–10 is at [acetheirtest.com](https://www.acetheirtest.com).

Check your own answers

1. (a) 18 hundreds · (b) 26 hundreds · (c) 40 hundreds. (c) is the one to check. The hundreds digit in 4 000 is 0, but there are 40 hundreds in it. Put out four thousand-blocks and count the flats.
2. 10 hundreds · 100 tens · 1 000 ones. ★ The middle one is the one people miss — one hundred is 10 tens, and there are 10 hundreds, so that's 100 tens.
3. (a) 1 999 · (b) 4 100 · (c) 8 099. ★ Look at (c): a zero appeared that wasn't there before.
4. 2 000, 2 010.
5. 3 000, 3 100.
6. 10 hundreds. 2 000 = 1 thousand + 10 hundreds. That's the swap — you opened one thousand up.
7. 35 hundreds and 350 tens. If you wrote 35 for the tens, you stopped at hundreds — there are ten tens in every hundred.
8. No right answer. ★ If the grown-up got it wrong, that's interesting — most adults have never been asked why.
9. 9 999 — and five digits changed, because there was nothing in any of the columns to take one from. Same idea, one column further along.
10. 4 thousands · 40 hundreds · 400 tens · 4 000 ones. ★ What to notice: each one is ten times the one before it, because each unit is ten times smaller. Same amount of stuff, every time.