

Mathematics Level 1

Chapter 1 — Number: numbers to 120, place value and quantifying · 3 subtopics · 3 CDs

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Numbers to 120: naming, reading, writing, ordering and locating

Mathematics 1 · Level 1 · Chapter 1 — Number · Subtopic 1A. Teaching order: first of 15, before 1B (recommended sequence per TOC D5).

Owens: VC2M1N01 — “recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts”. Quoted verbatim. Source: Victorian Curriculum F–10 Version 2.0, Mathematics (VCAA), Level 1, Number, VC2M1N01, via `maths_1.json` (VCAA export retrieved 2026-07-29).

Achievement standard (extract): “students connect number names, numerals and quantities, and order numbers to at least 120.” Quoted verbatim from the same source.

Elaborations drawn on: VC2M1N01.E01, .E02, .E03, .E04 — all four elaborations of this CD.

Linked bank: 384 MCQs keyed to VC2M1N01 — digital asset only, not printed (TOC D12).

All task wording is read aloud by the teacher; responses are a numeral, a mark on a line, a drawing or a short sentence (TOC D17). Student-facing text runs from “What we are learning” to “Answers”; the front matter above and the Teacher note at the end are for the teacher.

What we are learning

We can count to 20. Now we count on to 120!

Every number has:

- a **name** — we say it: *sixteen*
- a **numeral** (say: new-mer-al) — we write it: 16
- a **spot** in counting order — 16 comes after 15 and before 17

Ordering numbers. Count! The number you say first is the least. The number you say last is the most.

Two big helpers.

- A **number line** is a line with numbers in order. The numbers go up as you move along the line.
- A **hundreds chart** is a big table of numbers. It shows 0 to 99 in rows.



A number line from 0 to 120. The numbers go up by 10.

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99

A hundreds chart. It shows 0 to 99 in rows.

Watch out! Some numbers look almost the same and sound almost the same.

- 16 is *sixteen*.
- 60 is *sixty*.

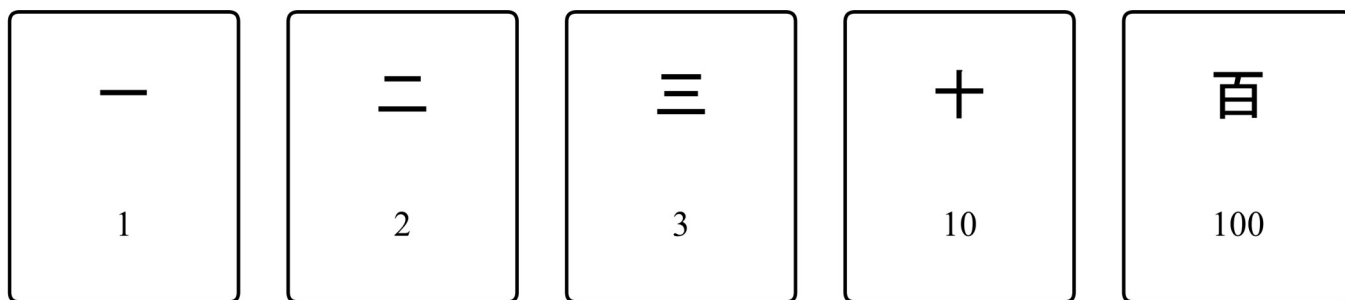
Say them slowly: *sixteen ... sixty*. They are not the same number!



Two numeral cards. 16 is sixteen. 60 is sixty.

Numbers all around the world. People use numbers in all languages. They use lots of ways to write numbers. In Japanese, some numbers use kanji (say: kahn-jee). In Chinese, numbers use characters too.

一 is 1. 二 is 2. 三 is 3. 十 is 10. 百 is 100.



The kanji for 1, 2, 3, 10 and 100.

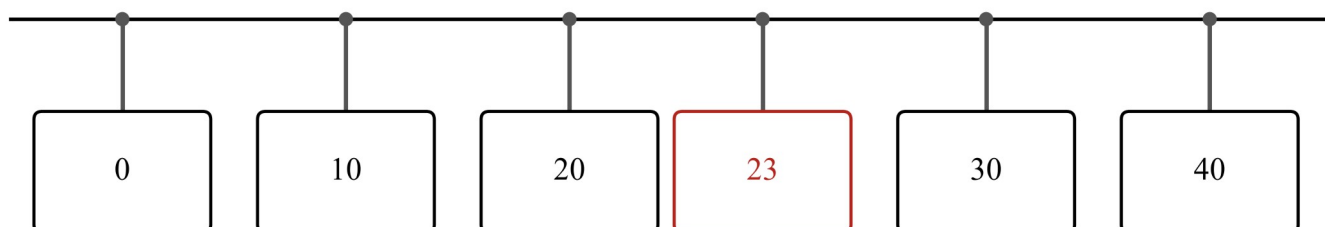
New words:

- **numeral** — how we write a number: 7, 16 and 120 are numerals
 - **number line** — numbers in order on a line
 - **number track** — numbers in order, with some blanks to fill
 - **hundreds chart** — a big table of numbers from 0 to 99
 - **peg** — to peg a card is to put it on the string
 - **before / after** — 15 is before 16, and 17 is after 16
 - **between** — 16 is between 15 and 17
-

Do it with your class

You need: number cards from 0 to 120, string, pegs, a big hundreds chart, and cubes.

1. Count to 20 together. Well done — you know these numbers!
2. Count on from 20 to 40. Point to the cards as you count.
3. Make a number line. Put the string out. Peg the cards 0, 10, 20, 30 and 40 in order on the string.
4. Now peg 23 on the line. 23 comes just after 20. Put it next to 20.
5. Use the big hundreds chart. Find 34. Now find 43. Look! They use the same numerals, 3 and 4 — but they are not the same number.
6. Count on and on: 98, 99, 100, 101! Count all the way to 120.



Number cards 0, 10, 20, 30 and 40 on a string. 23 is just after 20.

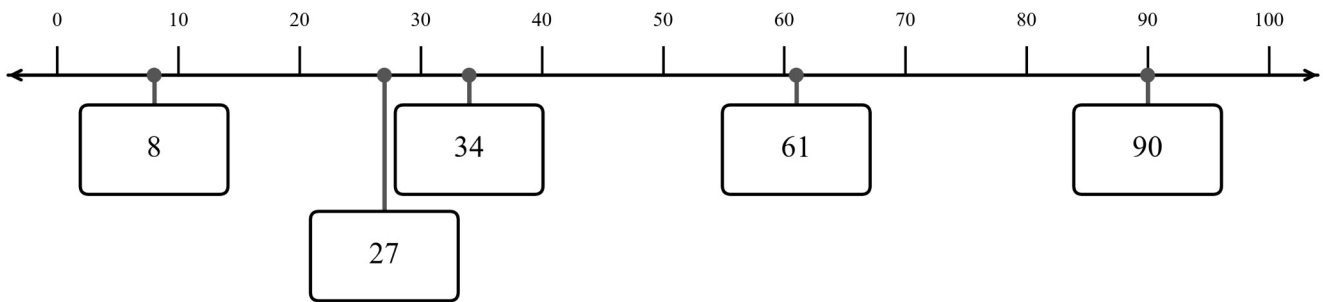
Worked examples

Example 1 — put number cards in order

Try this. Put the cards 34, 8, 61, 27 and 90 in order, from least to most.

You need: number cards, string and pegs.

What we do	Why
1. Look at all the cards: 34, 8, 61, 27, 90.	We want to put them in order.
2. Which number do you say first when you count? 8. Put 8 first.	Counting tells us the order.
3. Count on from 8: ... 27 ... 34 ... 61 ... 90.	Each number has its own spot.
4. Put the cards in that order: 8, 27, 34, 61, 90.	That is least to most.
5. Check! Say the cards as you count: 8, 27, 34, 61, 90.	The order matches counting.
6. Peg the cards on the number line.	Now we can see the order.



Cards 8, 27, 34, 61 and 90 in order on a number line from 0 to 100.

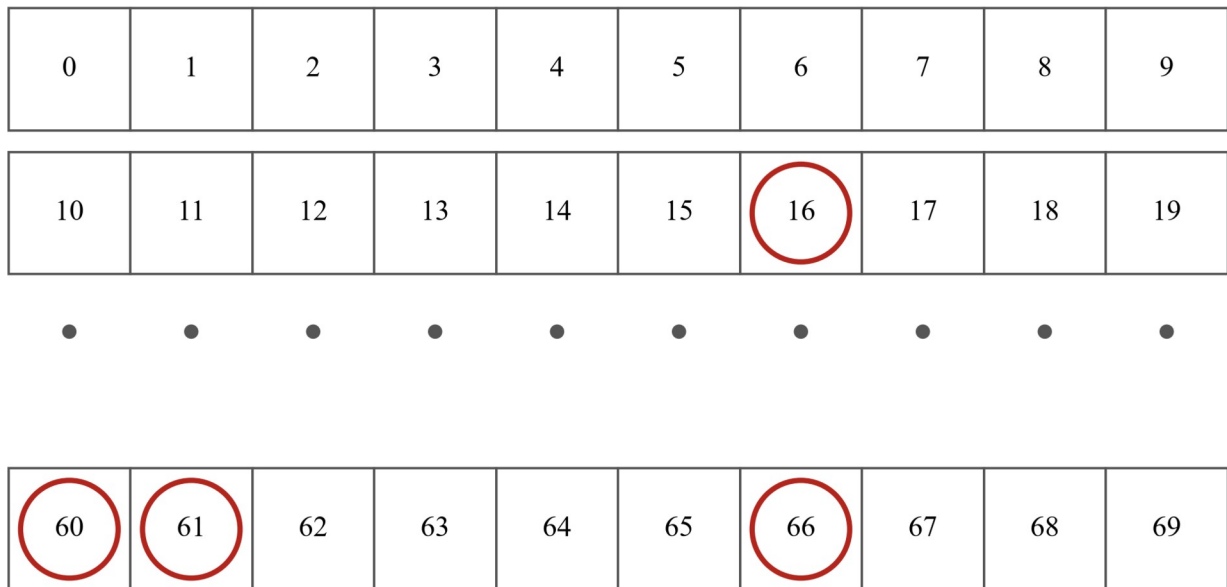
0 10 20 30 40 50 60 70 80 90 100 | 8 27 34 61 90

Example 2 — sixteen or sixty?

Try this. Find 16, 60, 61 and 66 on the hundreds chart. Say each name. Which number comes first?

You need: a hundreds chart and cubes.

What we do	Why
1. Say the names: sixteen, sixty, sixty-one, sixty-six.	The names sound almost the same. Listen!
2. Find 16. It is in the row with 11, 12, 13 ... 19. Put a cube on 16.	16 comes just after 15.
3. Find 60. It is at the start of the row with 60, 61, 62 ... Put a cube on 60.	60 comes just after 59.
4. Find 61 and 66. They are in the same row as 60. Put cubes on them too.	The chart keeps numbers in order.
5. Which comes first when you count, 16 or 60? We say 16 first.	16 is less than 60.



Rows 0 to 19 and 60 to 69 of a hundreds chart, with cubes on 16, 60, 61 and 66.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 60 61 62 63 64 65 66 67 68 69

The cubes are on 16, 60, 61 and 66.

Now you try

With your teacher

Q1. Count together from 30 to 45. Then write the missing numerals.

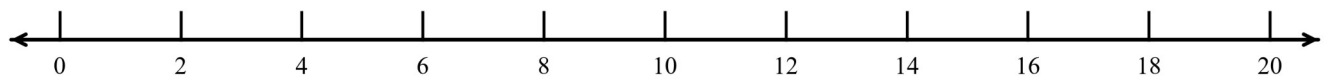
38, □, 40, 41, □, 43

Q2. Match each name to its numeral. Draw a line.

sixteen 60 sixty 66 sixty-six 16 sixty-one 61

Q3. Look at the number line.

0 2 4 6 8 10 12 14 16 18 20 |—|—|—|—|—|—|—|—|—|—|



A number line from 0 to 20. The numbers go up by 2.

(a) Mark 7. (b) Mark 14. (c) Which mark is between 10 and 20?

Q4. Some numerals are missing from the hundreds chart! Write them.

Row 1: 51, □, 53, □, 55, 56, □

Row 2: □, 71, 72, □, 74

Q5. Put 45, 9 and 70 in order, from least to most. Use cards if you like.

Q6. Numbers in other ways! Match each character to its numeral. Draw a line.

— 2 = 10 ≡ 1 + 3

—

=

≡

+

2

10

1

3

Four kanji cards and four numeral cards to match.

On your own

Q7. Write the numeral for each name.

- (a) twenty-nine (b) seventy-three (c) sixteen (d) one hundred and twelve

Q8. Write the missing numerals on the number track.

(a)



(b)



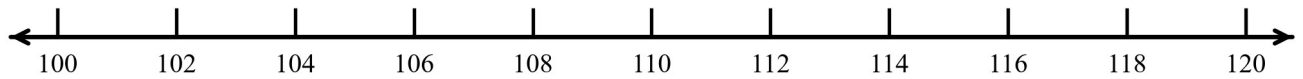
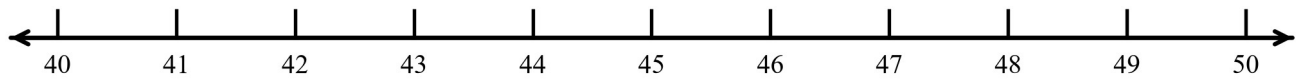
Two number tracks with some blank cards.

- (a) 96, 97, □, □, 100, □, 102

- (b) 112, □, □, 115, □

Q9. Put in order, from least to most: 83, 38, 108, 3.

Q10. Mark each number on its number line.



Two number lines, 40 to 50 and 100 to 120.

40 41 42 43 44 45 46 47 48 49 50 |—|—|—|—|—|—|—|—|—|—|

(a) Mark 43. (b) Mark 48.

100 102 104 106 108 110 112 114 116 118 120 |—|—|—|—|—|—|—|—|—|—|

(c) Mark 110. (d) Mark 116.

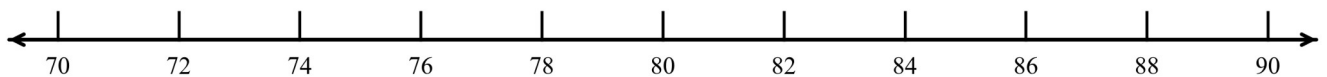
Q11. Write the numeral.

- (a) What number comes after 59?
- (b) What number comes before 81?
- (c) What number is between 109 and 111?

Q12. Mia says sixteen and sixty are the same number. Is Mia right? Talk about it with a friend.

Q13. Write three numerals between 70 and 90. Put them in order. Mark them on the line.

70 72 74 76 78 80 82 84 86 88 90 |—|—|—|—|—|—|—|—|—|—|



A number line from 70 to 90. The numbers go up by 2.

Q14. Look at the hundreds chart. 24, 34, 44 and 54 all end in 4. Find three more numerals that end in 4. Write them.

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99

A hundreds chart with cubes on 24, 34, 44 and 54.

Answers

Q1. 38, 39, 40, 41, 42, 43.

Q2. sixteen — 16. sixty — 60. sixty-six — 66. sixty-one — 61.

Q3. (a) ● at 7. (b) ● at 14. (c) 14.

Q4. Row 1: 52, 54, 57. Row 2: 70, 73.

Q5. 9, 45, 70.

Q6. — — 1. 二 — 2. 三 — 3. 十 — 10.

Q7. (a) 29. (b) 73. (c) 16. (d) 112.

Q8. (a) 98, 99, 101. (b) 113, 114, 116.

Q9. 3, 38, 83, 108.

Q10. (a) ● at 43. (b) ● at 48. (c) ● at 110. (d) ● at 116.

Q11. (a) 60. (b) 80. (c) 110.

Q12. Mia is not right. Sixteen is 16. Sixty is 60. They sound almost the same, but they are not the same number. 16 comes just after 15. 60 comes just after 59.

Q13. Answers will not all be the same. Check: three numerals between 70 and 90, in order, and marked on the line.

Q14. The numerals that end in 4 are 4, 14, 24, 34, 44, 54, 64, 74, 84 and 94. Any three of 4, 14, 64, 74, 84 and 94.

Teacher note

Curriculum map. This subtopic owns VC2M1N01 in full (TOC §3, §4). The content description is delivered through naming, reading, writing, ordering and locating work built on the two spine representations of the chapter — the number line and the hundreds chart, both of which recur in 1C and 3B (TOC Chapter 1 note) — not through the elaborations one by one (D11): E01 (reading, writing and naming numerals, ordering two-digit numbers from zero to at least 120, using patterns within the natural number system, including numbers that look and sound similar, e.g. 16, 60, 61, 66) → the “Watch out!” box, Example 2, Q2, Q7, Q12, and Q14 (the “ends in 4” column is E01’s “patterns within the natural number system”, kept at pattern-noticing; partitioning into tens and ones is 1B’s VC2M1N02 and is not anticipated); E02 (number tracks, positioning numbered cards in correct order and relative location by pegging on an empty number line) → steps 3–4 of the class sequence, Example 1, Q3, Q10 and Q13; E03 (using hundreds charts to build understanding and fluency with numbers; building one from cards) → steps 5–6 of the class sequence, Example 2, Q4 and Q14 — E03’s tens-and-ones colour-coding variant is deliberately not used here because partitioning belongs to 1B (VC2M1N02, D3/D4 boundary); E04 (numbers in all languages and cultures; kanji numbers in Japanese; characters in Chinese) → the “Numbers all around the world” box and Q6. Ordering is done through counting order and position on the chart or line, not through place-value decomposition (taught in 1B) and with no operation symbols (+, −, = are introduced in 2A per VC2M1N04 . E04, D9). All numerals stay at or below 120 (D8).

Teaching sequence. The “Do it with your class” section is the one short materials-built teaching sequence required by the TOC volume calibration. Step 1 rehearses the Foundation count to 20; steps 2–6 extend it to 120 across both spine representations.

E04 and content policy. E04 is not Aboriginal and Torres Strait Islander material, so CONTENT_POLICY Rule 1 is not engaged by any of this subtopic’s four elaborations. The kanji shown (一, 二, 三, 十, 百) are the standard Japanese numerals for 1, 2, 3, 10 and 100, presented exactly as VC2M1N01 . E04 frames them (kanji numbers in Japanese; characters for 10 and 100 in Japanese and Chinese numeration). Source: Victorian Curriculum F–10 Version 2.0, Mathematics (VCAA), Level 1, VC2M1N01 . E04, via maths_1 . json (VCAA export retrieved 2026-07-29). No People, place or cultural practice beyond VCAA’s own wording is named (D16 principle applied by analogy; see also CONTENT_POLICY Rule 1).

Materials. Number cards 0–120 (two sets if available); string and pegs for class number lines; a large class hundreds chart (0–99) or a set of cards 0–99 to build one; connecting cubes (unifix/centi-cubes); paper; pens; optional device with a virtual number line or hundreds chart app (the CD names physical and virtual materials).

Assumed Foundation skills, rehearsed only (D3): counting to 20 and knowing zero (VC2MFN01), and quantifying and comparing to 20 (VC2MFN03) — rehearsed in step 1 of the class sequence and in Q1, not taught as new and not assessed as Level 1 outcomes.

Level 2 destination (named only, not taught — D3): VC2M2N01 (numbers to 1000) and VC2M2N02 (regrouping and renaming). Secure naming, ordering and locating to 120 here is what those build on.

Assessment. Chapter checkpoint T1 (18 marks across VC2M1N01 + VC2M1N02 + VC2M1N03): teacher-read; hundreds chart, number line and base-ten materials supplied; numerals and short drawings recorded (TOC §7). Q12-style “is this right? talk about it” items score the explanation as well as the answer — a rubric that scores only the answer fails this CD (TOC §7).

Data note. Every numeral set in this section is an invented class context constructed for the example or task; no external datum is asserted beyond the curriculum quotation in the front matter and the kanji named by VC2M1N01.E04 (source line above), so no further source lines are required (TOC §6). All numerals stay within the Level 1 range (≤ 120 , D8); no operation symbols appear (D9); no chance language (D6); no metric units (D7); no money (coins enter with 3B, VC2M1A01.E04).

Vocabulary gate record (DJB 2026-08-18). Student-facing text — everything from “What we are learning” to “Answers” — is at or below the Yr1 ladder ceiling (rank 1), verified with `load_ladder/check_text/tokenize` from `S:\Files\projects\mcq-system\reports\vocab_level_check.py`. Result: CLEAN — zero general words above Yr1. The only flagged tokens are curriculum-exempt words retained per VOCABULARY_LEVEL.md exemption 1, each defined at first use where student-facing: *numeral(s)* (verbatim in the CD and achievement standard); *chart(s)* and *hundreds (chart)* (verbatim in the CD and VC2M1N01.E03); *track* and *peg/pegs* (verbatim in VC2M1N01.E02, “number tracks” / “pegging” — the gate’s own conservative stem lookup resolves *peg/pegs* to the same root); *example(s)* (verbatim in VC2M1N01.E01 and .E03, “for example”; retained in the headings “Worked examples” and “Example 1/2”); *hundred(s)* as the number names required by E01’s “naming ... from zero to at least 120” (and named as 100 in E04); and *kanji*, *languages*, *Japanese*, *Chinese* (all verbatim in VC2M1N01.E04; *Japanese* and *Chinese* are also proper nouns, exemption 3). Singular/plural and base/inflected pairs (*numeral~numerals*, *hundred~hundreds*, *example~examples*, *track~tracks*, *peg~pegs* *pegging*) count as the curriculum’s own words under WORD_LEVEL_POLICY Rule 3’s conservative-lookup principle (a text using “makes” is using MAKE). Pandoc div directives (`::: {custom-style=...}`) are build markup, not student text, and are stripped before the check — the tokens *custom-style*, *source* and *code* exist only inside those directives. The phonetic respellings *new-mer-al* and *kahn-jee* inside “(say: ...)” glosses are unplaced and can never be violations (same practice as 6B’s *pik-toh-graf*). At-level synonyms were chosen throughout so that no general word above Yr1 remains (e.g. “not the same” rather than a Yr2-placed alternative; “most” rather than a Yr2-placed superlative; “cubes” rather than a Yr2-placed materials word; “Try this.” rather than a Yr2-placed prompt noun; the class-sequence heading avoids a Yr3-placed sequencing word). The front matter and this Teacher note are teacher-facing metadata and are not vocabulary-gated (WORD_LEVEL_POLICY Rule 3).

Partitioning one- and two-digit numbers into tens and ones

Mathematics 1 · Level 1 · Chapter 1 — Number · Subtopic 1B. Teaching order: second of 15, after 1A; next is 3A (TOC D5).

Owens: VC2M1N02 — “partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones”. Quoted verbatim. Source: Victorian Curriculum F–10 Version 2.0, Mathematics (VCAA), Level 1, Number, VC2M1N02, via `maths_1.json` (VCAA export retrieved 2026-07-29).

Achievement standard (extract): “They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones.” Quoted verbatim from the same source.

Elaborations drawn on: VC2M1N02.E01, .E02, .E03 — all three.

Linked bank: 240 MCQs keyed to VC2M1N02 — digital asset only, not printed (TOC D12).

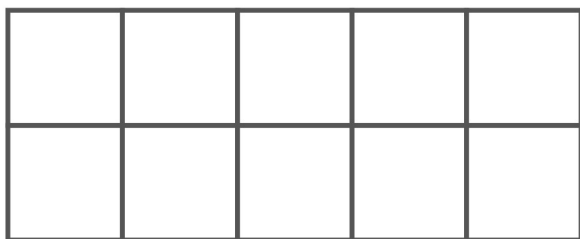
All task wording is read aloud by the teacher; responses are a numeral, a drawing or a short phrase (TOC D17). Student-facing text runs from “What we are learning” to “Answers”; the front matter above and the Teacher note at the end are for the teacher. No +, – or = symbols appear in the student-facing text: those three are introduced in 2A (VC2M1N04.E04), which is taught after 1B in the recommended sequence (TOC D5, D9). Partitions are recorded with numbers and words, after the manner of VC2M1N02.E03 itself (“10, 10 and 4 combine to make 24”).

What we are learning

Numbers can be broken into parts. To **partition** a number is to break it into parts. The parts still make the same number.

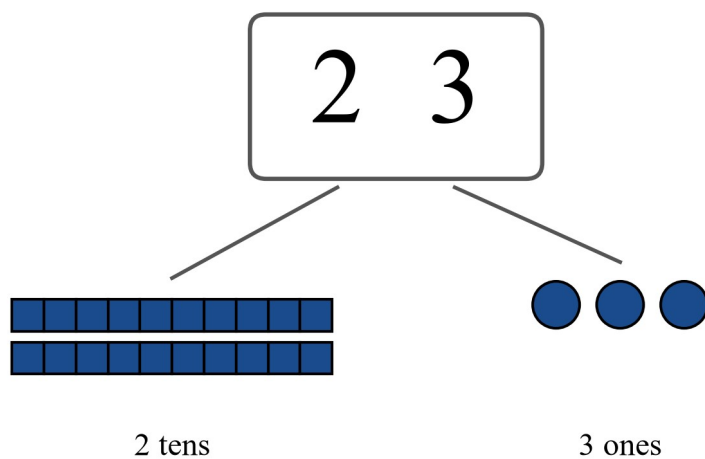
New words:

- To **partition** (say: par-tish-un) means to break a number into parts.
- A **digit** is one of 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. 35 has 2 digits: 3 and 5.
- A **ten** is a group of 10 ones.
- A **ten-stick** is a stick of 10 cubes. 1 ten-stick is 1 ten.
- The **ones** are the cubes not in a stick. Each one is 1.
- A **ten-frame** is a card with 10 spots. It helps us see numbers to 10.



A ten-frame with 10 spots and no dots on it.

Tens and ones. Two-digit numbers can be partitioned into tens and ones. 23 is 2 tens and 3 ones. In 23, the digit 2 means 2 tens. The digit 3 means 3 ones.

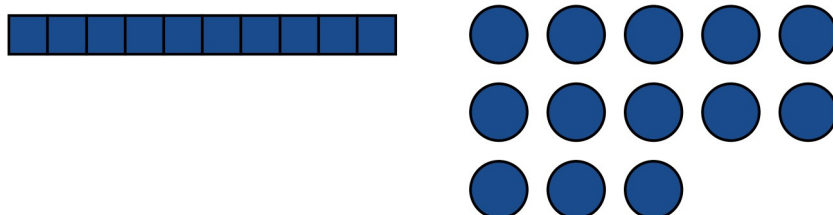


The number 23. The digit 2 means 2 tens. The digit 3 means 3 ones.

Different ways. We can partition a number in different ways. 23 is 2 tens and 3 ones. 23 is also 1 ten and 13 ones. The number stays the same.



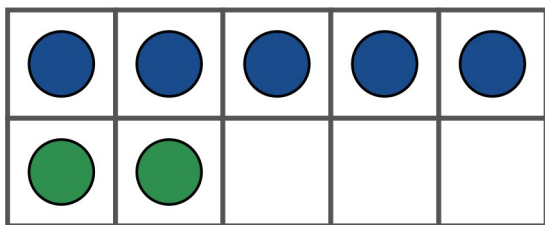
23 is 2 tens and 3 ones



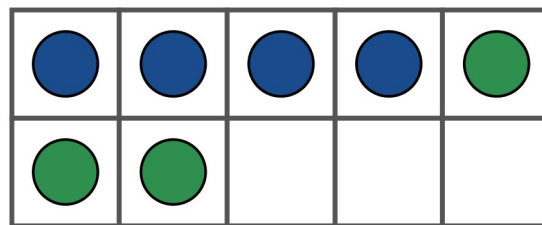
23 is 1 ten and 13 ones

23 is 2 ten-sticks and 3 ones. 23 is 1 ten-stick and 13 ones. The number stays the same.

One-digit numbers too. We can partition one-digit numbers. 7 is 5 and 2. 7 is also 4 and 3.



7 is 5 and 2



7 is 4 and 3

Two ten-frames. 7 is 5 and 2. 7 is 4 and 3.

Worked examples

Example 1 — make tens and ones

What to do: Show 23 with cubes. How many tens? How many ones?

You need: 23 cubes.

What we do

Why

1. Get 23 cubes. Count them.
2. Make sticks of 10 cubes. You can make 2 sticks.
3. Look at the cubes not in a stick. There are 3.
4. Say it: 23 is 2 tens and 3 ones.
5. Check: count all the cubes. 10, 20, 21, 22, 23.

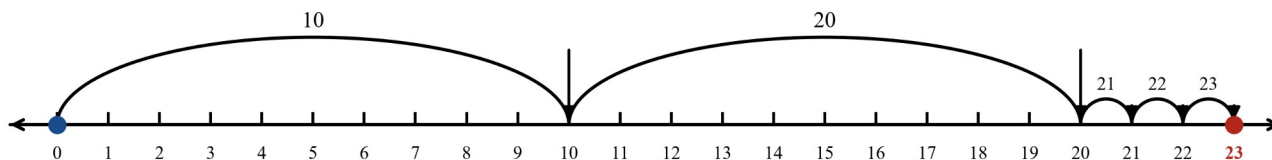
We start with 23.
A stick of 10 is 1 ten.
These 3 cubes are the ones.
2 tens and 3 ones make 23.
Still 23 cubes. Partitioning does not change how many.



2 tens

3 ones

2 ten-sticks and 3 ones. 2 tens and 3 ones make 23.



A number line from 0 to 23. Count 10, 20, 21, 22, 23.

23 is  • • • 2 tens 3 ones

Example 2 — one number, different ways

What to do: Make 37 with ten-sticks and ones. Then partition 37 a different way.

You need: 37 cubes.

What we do

Why

1. Make 37: 3 ten-sticks and 7 ones.
2. Break 1 ten-stick into 10 ones. Put them with the 7 ones. Now there are 2 ten-sticks and 17 ones.
3. Break 1 more ten-stick. Now there is 1 ten-stick and 27 ones.
4. Write each way.

37 is 3 tens and 7 ones.

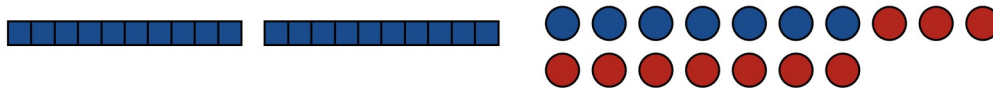
1 ten is the same as 10 ones. The number is still 37.

Still 37. Only the parts changed.

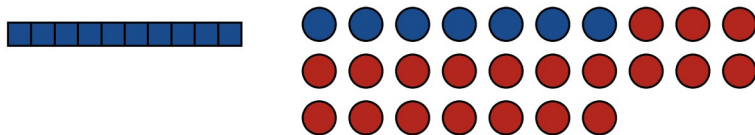
We can write partitions with numbers and words.



Way 1: 37 is 3 tens and 7 ones



Way 2: 37 is 2 tens and 17 ones



Way 3: 37 is 1 ten and 27 ones

37 in 3 ways. Way 1: 3 tens and 7 ones. Way 2: 2 tens and 17 ones. Way 3: 1 ten and 27 ones.

Way 1 37 is 3 tens and 7 ones

Way 2 37 is 2 tens and 17 ones

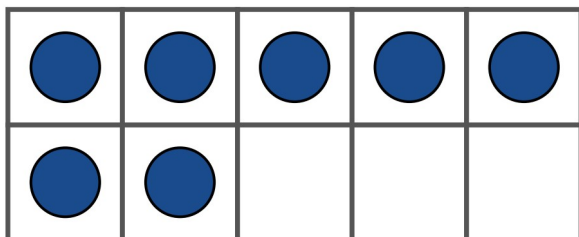
Way 3 37 is 1 ten and 27 ones

Now you try

With your teacher

Q1. The ten-frame shows a number.

● ● ● ● ● ● ● ○ ○ ○



A ten-frame shows 7 dots.

- How many dots are on the ten-frame?
- How many more dots will fill the ten-frame? 7 and ○ make 10.

(c) Partition 7 two ways. 7 is 5 and $\square$. 7 is 4 and $\square$.

Q2. Look at the ten-sticks and ones.



3 ten-sticks and 6 ones.

- (a) How many tens?
- (b) How many ones?
- (c) What number is it? 36 is $\square$ tens and $\square$ ones.

Q3. Make 52 with ten-sticks and ones.

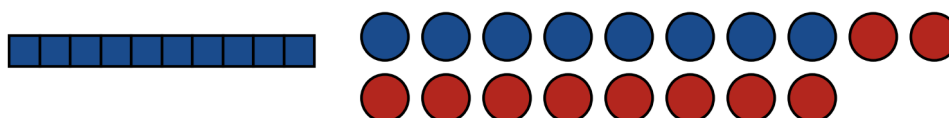
- (a) How many ten-sticks do you need?
- (b) How many ones do you need?
- (c) 52 is $\square$ tens and $\square$ ones.

Q4. 28 is 2 ten-sticks and 8 ones. Break 1 ten-stick into ones.



28 is 2 tens and 8 ones

↓ break 1 ten-stick



now: 1 ten and 18 ones

28 is 2 ten-sticks and 8 ones. Break 1 ten-stick. Now there is 1 ten-stick and 18 ones.

- (a) How many ten-sticks are there now?
- (b) How many ones are there now?
- (c) Is it still 28? Count to check.

Q5. 64 is 6 tens and 4 ones. Use cubes. Find a different way.

- (a) 64 is 5 tens and $\square$ ones.
- (b) 64 is 4 tens and $\square$ ones.

Q6. 10, 10, 10, 10 and 8 make 48. Write 48 a different way.

- (a) 10, 10, 10 and $\square$ make 48.
- (b) 10, 10 and $\square$ make 48.

(c) 10 and $\square$ make 48.

On your own

Q7. Partition each number into tens and ones.

(a) 31 is $\square$ tens and $\square$ ones.

(b) 58 is $\square$ tens and $\square$ ones.

(c) 90 is $\square$ tens and $\square$ ones.

Q8. Draw ten-sticks and ones to show 45. Then write: 45 is $\square$ tens and $\square$ ones.

Q9. Partition 9 two ways.

9 is $\square$ and $\square$. 9 is $\square$ and $\square$.

Q10. 56 is 5 tens and 6 ones. Find two different ways.

(a) 56 is 4 tens and $\square$ ones.

(b) 56 is 3 tens and $\square$ ones.

Q11. Ali says 42 is 4 tens and 2 ones. Ben says 42 is 3 tens and 12 ones. Are they both right? Use cubes to check. Tell a friend why.

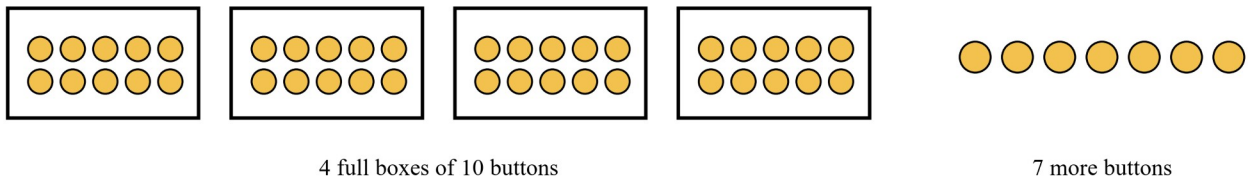
Q12. Who am I?

(a) I have 6 tens and 3 ones. What number am I?

(b) I have 8 tens and 0 ones. What number am I?

(c) I have 1 ten and 11 ones. What number am I?

Q13. A box holds 10 buttons. Mia has 4 full boxes and 7 more buttons. How many buttons does Mia have? Show how you know.



4 boxes with 10 buttons in each box, and 7 more buttons.

Q14. Partition 25 into tens and ones. How many ways can you find? Write each way.

Answers

Q1. (a) 7. (b) 3 — 7 and 3 make 10. (c) 2; 3.

Q2. (a) 3. (b) 6. (c) 36; 36 is 3 tens and 6 ones.

Q3. (a) 5. (b) 2. (c) 52 is 5 tens and 2 ones.

Q4. (a) 1. (b) 18. (c) Yes. 1 ten and 18 ones is still 28.

Q5. (a) 14. (b) 24.

Q6. (a) 18. (b) 28. (c) 38.

Q7. (a) 3 tens and 1 one. (b) 5 tens and 8 ones. (c) 9 tens and 0 ones.

Q8. 4 ten-sticks and 5 ones. 45 is 4 tens and 5 ones.

Q9. One answer: 9 is 5 and 4; 9 is 8 and 1. Any two ways to make 9 are right.

Q10. (a) 16. (b) 26.

Q11. Yes, they are both right. 4 tens and 2 ones make 42. 3 tens and 12 ones make 42 too. 12 ones is the same as 1 ten and 2 ones, so 3 tens and 12 ones is 4 tens and 2 ones.

Q12. (a) 63. (b) 80. (c) 21.

Q13. 47. 4 full boxes is 4 tens. 4 tens and 7 ones is 47.

Q14. 3 ways: 25 is 2 tens and 5 ones; 25 is 1 ten and 15 ones; 25 is 25 ones.

Teacher note

Curriculum map. This subtopic owns VC2M1N02 in full (TOC §3, §4). The content description is delivered through a materials-based sequence, not through the elaborations one by one (D11): E01 (part-part-whole facts to 10, ten-frames, pairs that make 10) → the opening “One-digit numbers too” idea and Q1 — this rehearses Foundation part-part-whole to 10 (VC2MFN04) as the entry point, per D3, and the virtual ten-frame option named in E01 is carried in the Virtual materials note below; E02 (partition numbers into counts of tens and ones, standard and non-standard — VCAA’s illustration is “35 as 3 tens and 5 ones or as 2 tens and 15 ones”) → Example 1, Example 2, Q2–Q5, Q7–Q8, Q10–Q13, with original numbers throughout (23, 37, 36, 52, 28, 64, 31, 58, 90, 45, 56, 42, 47, 25); E03 (partition a number in different ways and record the partitions using numbers — VCAA’s illustration is 24 as “10, 10 and 4” or “10 and 14”) → Example 2 step 4, Q6 (48 as 4 tens and 8, then 10, 10, 10 and 18, then 10, 10 and 28, then 10 and 38), Q14, and the recording frame used throughout (“37 is 3 tens and 7 ones”). The CD’s “one- and two-digit numbers” is delivered in full: one-digit partitioning in the opening and Q1, Q9; two-digit work everywhere else. “In different ways” is delivered by Example 2, Q4–Q6, Q10, Q11 and Q14. “Using physical and virtual materials” is delivered by the cubes-and-ten-frame tasks plus the device option in the Virtual materials note.

Non-standard partitions. TOC §3 flags 1B’s non-standard partitions (35 as 2 tens and 15 ones, VC2M1N02 . E02) as the part of the CD most often dropped, and the T1 checkpoint scores them separately from standard tens-and-ones. Example 2, Q4, Q5, Q10, Q11, Q12(c) and Q14 are the non-standard rehearsal items; T1 should carry at least one of this kind.

No operation symbols yet. The student-facing text uses no +, – or =. Those symbols are introduced in 2A (VC2M1N04 . E04), which comes after 1B in the recommended teaching sequence (D5), and they are the only operation symbols in the book (D9). Partitions are recorded with numbers and words, which is exactly how E03 records (“10, 10 and 4 combine to make 24”). Once 2A has introduced the symbols, partitions like those in Example 2 can be written as number sentences (for example, $37 = 30 + 7$); that is 2A’s work, not 1B’s.

Virtual materials. The CD names physical and virtual materials, and E01 names a digital app or website for virtual ten-frames. The tasks here are device-neutral; where devices are available, any ten-frame or tens-and-ones task (Q1,

Q4, Q5, Q10, Q11, Q14) may be done with a virtual ten-frame or virtual base-ten blocks instead, and the partitioning is unchanged.

Materials. Connecting cubes (unifix or centi-cubes), with some pre-made sticks of 10; MAB or base-ten blocks (tens and ones); counters; ten-frames (card or drawn); a hundreds chart and a number line from 1A; small boxes or bags for grouping tasks (Q13); paper for drawing (Q8).

Assumed Foundation skill, rehearsed only: part-part-whole to 10 (VC2MFN04) — rehearsed in the opening ten-frame idea and Q1, not taught as new and not assessed as a Level 1 outcome; also numbers to 20 and zero (VC2MFN01) in the count-check steps of Example 1 and Q4 (D3).

Also drawn on (already taught, in the recommended sequence): naming, reading, writing, ordering and locating numbers to 120 — 1A (VC2M1N01), taught immediately before 1B; reading the digits of a two-digit number here builds on 1A’s hundreds chart and number line. No new counting is taught here.

Level 2 destination (named only, not taught — D3): VC2M2N01 (numbers to 1000) and VC2M2N02 (regrouping and renaming). Secure tens-and-ones partitioning, including non-standard partitions, is what renaming at Level 2 stands on (TOC §5: the place-value chain that runs to FM AoS1 and beyond).

Assessment. Chapter checkpoint T1 (18 marks across VC2M1N01 + VC2M1N02 + VC2M1N03): teacher-read; hundreds chart, number line and base-ten materials supplied; numerals and short drawings recorded (TOC §7). Non-standard partitions are scored separately from standard tens-and-ones (TOC §3).

Data note. All contexts are everyday classroom objects (cubes, buttons, boxes, ten-frames); the children’s names (Ali, Ben, Mia) are invented; no external datum is asserted, so no source line is required beyond the curriculum quotation in the front matter (TOC §6). All numbers stay within the CD’s one- and two-digit range (D8); no operation symbols appear before 2A teaches them (D9, and see above); no metric units (D7); no chance language (D6); no clock-face reading and no fractions. Aboriginal and Torres Strait Islander content is excluded (CONTENT_POLICY Rule 1); none of the three elaborations drawn on carries it, so there is no §2A exclusion to record for this subtopic.

Contested terms. None arise in this subtopic. The subject terms *partition*, *digit*, *ten-stick*, *ten-frame*, *tens* and *ones* are defined at first use in the New words list (CONTESTED_TERMS Rule 1).

Vocabulary gate record (DJB 2026-08-18). Student-facing text — everything from “What we are learning” to “Answers” — is at or below the Yr1 ladder ceiling (rank 1), verified with `load_ladder/check_text/tokenize` from `S:\Files\projects\mcq-system\reports\vocab_level_check.py` (conservative min-placement lookup). Result: CLEAN. With the pandoc div markers (`::: {custom-style="Source Code"}` — typesetting directives, not prose) stripped, the gate’s only flags are the curriculum’s own words, retained per VOCABULARY_LEVEL.md exemption 1 and defined at first use in the New words list where student-facing: *two-digit*, *one-digit*, *digit(s)* and *different* (all verbatim in the VC2M1N02 content description: “partition one- and two-digit numbers in different ways”) and *example(s)* (verbatim in E01–E03; appearing only in the “Worked examples” and “Example 1/2” headings — same handling as 6B’s *examples* flag). No general word above Yr1 remains: flagged candidates (*question*, *record(s)*, *counter(s)*, *complete*, *written*, *single*, *symbol(s)*, *apart*, *leftover*) were avoided at authoring time in favour of at-level wording. *Ten-stick(s)* is not on the ladder; the checker resolves it through its parts (*ten*, *stick*), both at or below Yr1. Unplaced tokens *Ali* (proper noun, exemption 3), *par-tish-un* (pronunciation respelling, as 6B’s *pik-toh-graf*) and *why* (function word) are not violations. The front matter and this Teacher note are teacher-facing metadata and are not vocabulary-gated (WORD_LEVEL_POLICY Rule 3).

Equal groups and skip counting to quantify collections to 120

Mathematics 1 · Level 1 · Chapter 1 — Number · Subtopic 1C. Teaching order: 5th of 15, after 3B and before 2A (TOC D5).

Owens: VC2M1N03 — “quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting”. Quoted verbatim. Source: Victorian Curriculum F–10 Version 2.0, Mathematics (VCAA), Level 1, Number, VC2M1N03, via maths_1.json (VCAA export retrieved 2026-07-29).

Achievement standard (extract): “Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120.” Quoted verbatim from the same source.

Elaborations drawn on: VC2M1N03.E01, .E02, .E03 — all three.

Linked bank: 192 MCQs keyed to VC2M1N03 — digital asset only, not printed (TOC D12).

All task wording is read aloud by the teacher; responses are a numeral, a drawing or a skip-count list (TOC D17). Student-facing text runs from “What we are learning” to “Answers”; the front matter above and the Teacher note at the end are for the teacher.

What we are learning

A collection can be big. We can count a big collection fast. We do not count one by one. We make equal groups. Then we skip count.

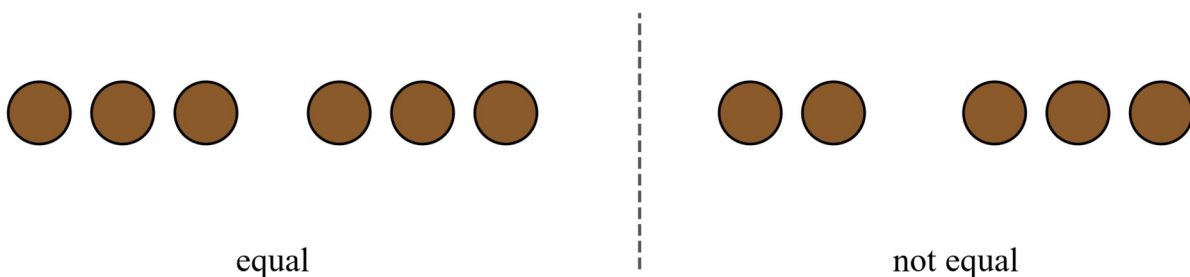
Equal groups have the same number in each group. Look at the beans.

6 beans: ● ● ● ● ● ●

These 2 groups are equal. Each group has 3 beans.

5 beans: ● ● ● ● ●

These 2 groups are not equal. One group has 2 beans. The other group has 3 beans.



2 equal groups of beans: 3 and 3. Then 2 groups that are not equal: 2 and 3.

New words:

- To **partition** (say: par-tish-un) is to put things into groups.
- The **digits** of 47 are 4 and 7. Digits are the numbers we use to write a number.

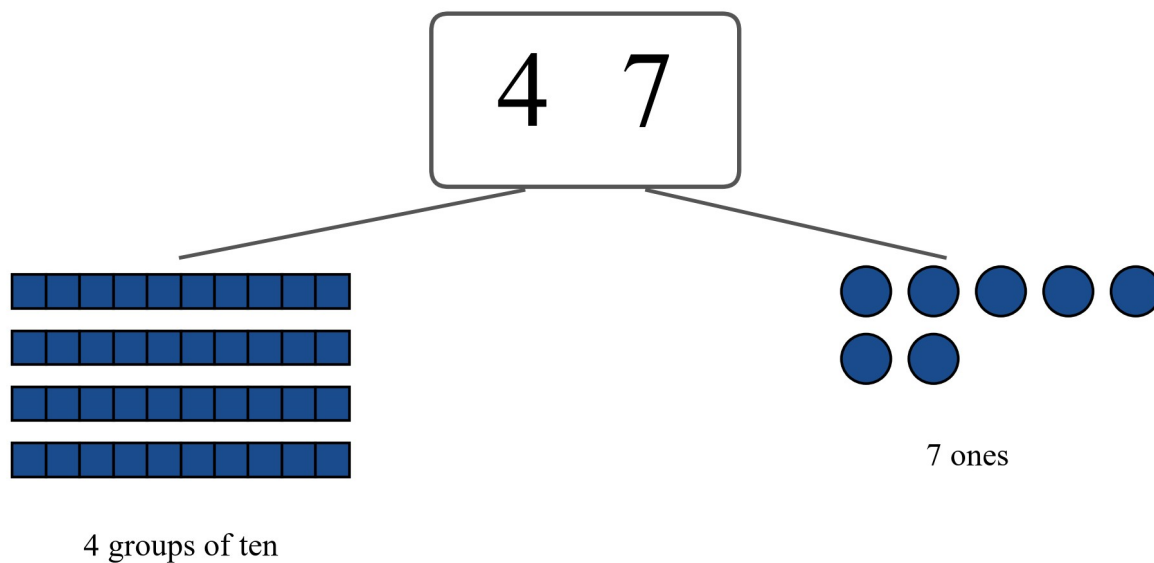
Skip counting helps us count big groups. You can skip count by twos, by fives and by tens.

1. Partition the collection into equal groups. Groups of 10 are good.
2. Skip count the groups.
3. Count on the ones that are left over.

The digits tell you about the groups. Look at 47 again.

- The digit 4 tells you about the tens: 4 groups of ten.
- The digit 7 tells you about the ones: 7 left over.

47 is 4 groups of ten and 7 ones.



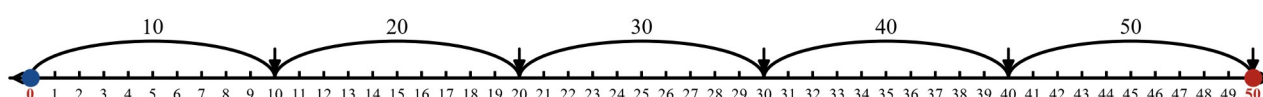
The number 47. 47 is 4 groups of ten and 7 ones.

You can see skip counting on the hundreds chart from 1A. You can show it with jumps on the number line too.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

skip count by tens

A hundreds chart from 1 to 120, with 10, 20, 30 and so on down one side.



A number line from 0 to 50, with jumps of 10: 10, 20, 30, 40 and 50.

Worked examples

Example 1 — count the pencils with cups of ten

Question: How many pencils are there?

Our class has 47 pencils. We want to count them fast.

You need: 47 pencils (or beans), 5 cups, paper.

What we do

Why

1. Put 10 pencils in each cup.

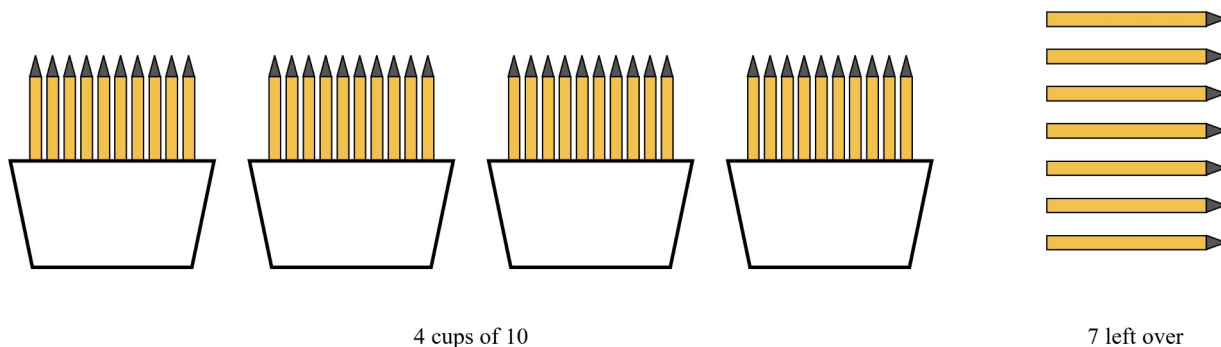
Each cup is a group of 10. The groups are equal.

2. Fill the cups. Stop when there are not 10 pencils left.

The rest are left over.



- | | |
|--|--------------------------------|
| 3. There are 4 full cups and 7 pencils left over. | 7 is not enough to fill a cup. |
| 4. Skip count the full cups: 10, 20, 30, 40. | Each full cup is 10. |
| 5. Count on the 7 pencils left over: 41, 42, 43, 44, 45, 46, 47. | Now we have all the pencils. |
| 6. There are 47 pencils. The digit 4 matches the 4 full cups. The digit 7 matches the 7 pencils left over. | The digits match the groups. |
| 7. Check: skip count again. 10, 20, 30, 40, then 41 to 47. | We get the same number. |
- ✓



4 cups with 10 pencils in each cup, and 7 pencils left over.

cup 1 ••••• cup 2 ••••• cup 3 ••••• cup 4 ••••• left over
•••••

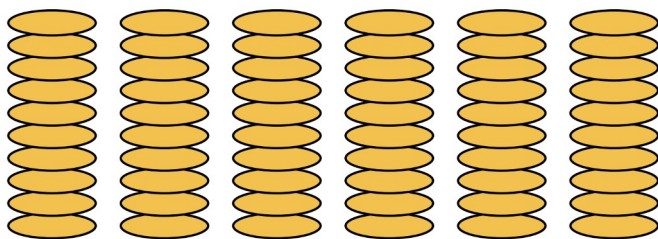
Example 2 — count the \$1 coins with piles of ten

Question: How many \$1 coins are there? How much money is that?

Tom has a jar of \$1 coins. He wants to count them fast.

You need: 68 \$1 coins (play money is good), paper.

- | | |
|---|---|
| 1. Make piles of 10 coins. | Each pile is a group of 10. The groups are equal. |
| 2. There are 6 full piles and 8 coins left over. | 8 is not enough to make a full pile. |
| 3. Skip count the full piles: 10, 20, 30, 40, 50, 60. | Each full pile is 10. |
| 4. Count on the 8 coins left over: 61, 62, 63, 64, 65, 66, 67, 68. | Now we have all the coins. |
| 5. There are 68 coins. The digit 6 matches the 6 full piles. The digit 8 matches the 8 coins left over. | The digits match the piles. |
| 6. Each coin is \$1. 68 coins makes \$68. | Now we know how much money there is. |
| 7. Check: skip count again. 10, 20, 30, 40, 50, 60, then 61 to 68. ✓ | We get the same number. |



6 piles of 10



8 left over

6 piles of 10 coins, and 8 coins left over.

pile 1 ••••• pile 2 ••••• pile 3 ••••• pile 4 ••••• pile 5 •
••••• pile 6 ••••• left over •••••

Now you try

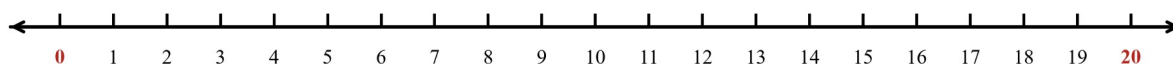
With your teacher

Q1. Equal or not equal? Make each one with beans. Say: equal or not equal?

- (a) 3 groups. Each group has 4 beans.
- (b) 3 groups: 3 beans, 5 beans and 3 beans.
- (c) 2 groups. Each group has 6 beans.

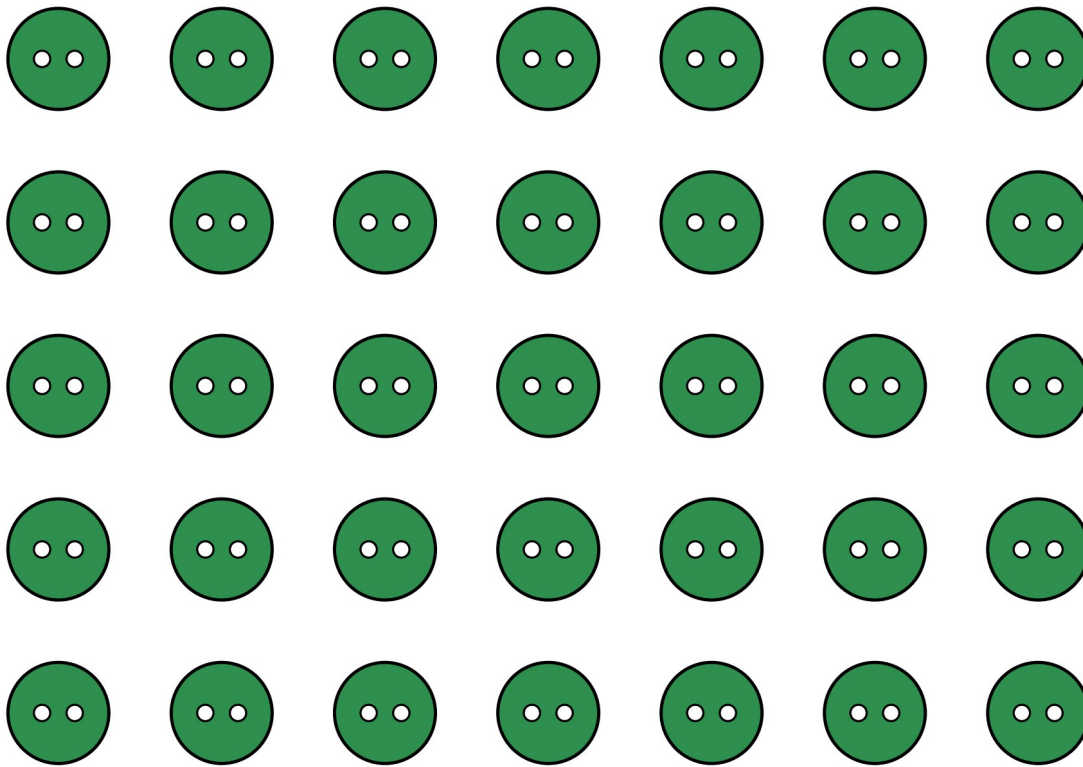
Q2. Groups of 2. You have 20 beans. Make groups of 2 beans. Skip count by twos to count the beans. How many groups do you make?

You can show your skip count with jumps on the number line.



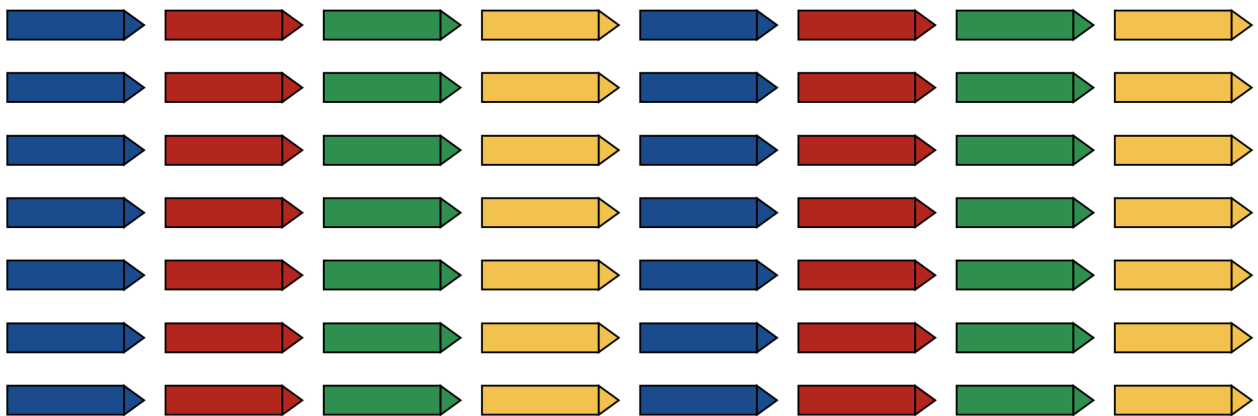
A number line from 0 to 20.

Q3. Groups of 5. There are 35 buttons. Put the buttons into groups of 5. Skip count by fives. How many groups do you make?



35 buttons.

Q4. Groups of 10. There are 56 crayons. Put the crayons into groups of 10.



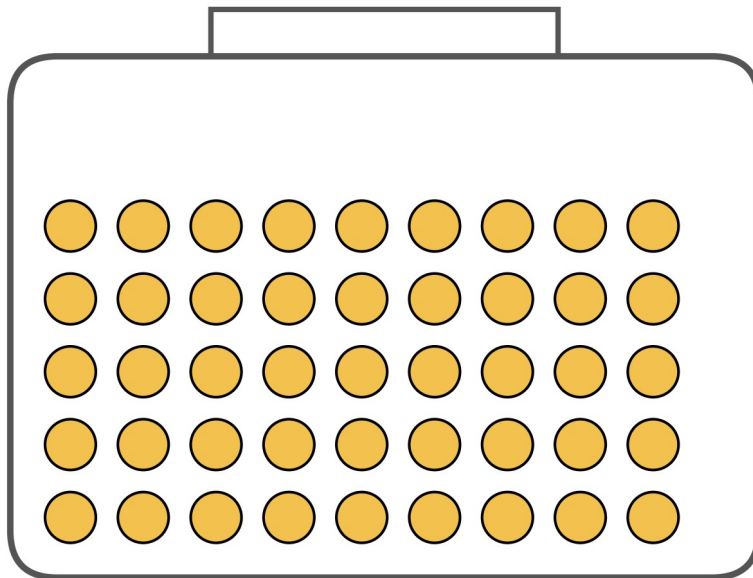
56 crayons.

- How many full groups do you make?
- How many crayons are left over?
- Skip count, then count on. How many crayons are there?
- In 56, the digit 5 tells you about the $\square$. The digit 6 tells you about the $\square$.

Q5. Draw the groups with blocks.

- (a) 63 blocks: draw the groups of ten and the ones left over.
- (b) 90 blocks: draw the groups of ten and the ones left over.
- (c) Which number has 0 ones left over?

Q6. \$1 coins. There are 45 \$1 coins in the jar. Make piles of 10 coins.



45 \$1 coins

A jar with 45 \$1 coins.

- (a) How many full piles do you make?
- (b) How many coins are left over?
- (c) Skip count, then count on. How many coins are there?
- (d) How much money is that?

On your own

Q7. Birds in the tree. Look at the picture. Each row has 10 birds. Each ● is 1 bird.

row 1 ● ● ● ● ● ● ● ● ● ● row 2 ● ● ● ● ● ● ● ● ● ● row 3 ● ● ● ● ● ● ● ● ● ● row 4 ● ● ● ● ● ● ● ● ● ● left over ● ● ●

- (a) Skip count the rows by tens. What numbers do you say?
- (b) Count on the birds left over. How many birds are there in all?

Q8. 120 beads. Mia has 120 beads. She makes groups of 10 beads.

- (a) How many groups of 10 does Mia make?
- (b) How many beads are left over?
- (c) Skip count by tens to 120. Fill in the numbers. You can use the hundreds chart to help.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

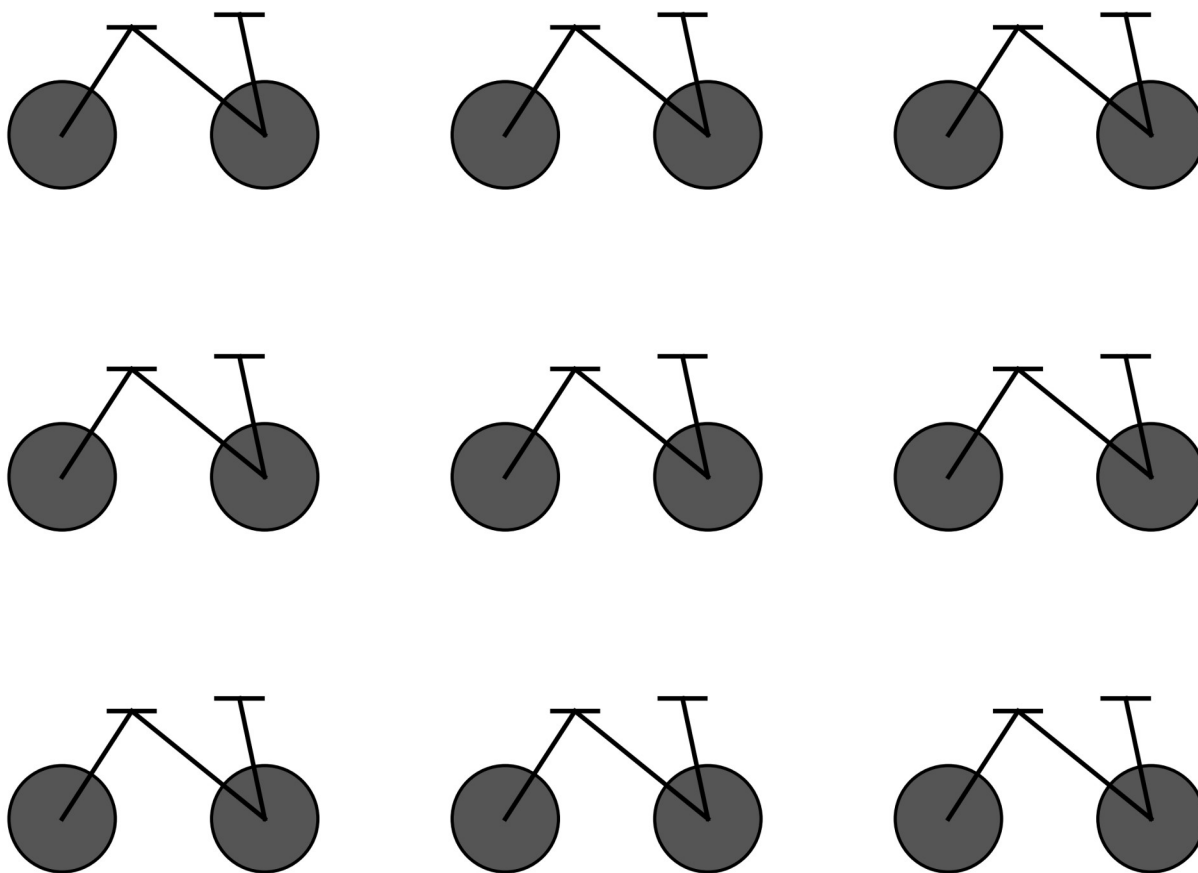
skip count by tens

A hundreds chart from 1 to 120, with 10, 20, 30 and so on down one side.

10, 20, 30, □, □, □, □, □, □, □, □

Q9. Shells by fives. We find shells at the beach. We put them into groups of 5. We make 9 groups. Skip count by fives. How many shells are there?

Q10. Bike wheels. There are 9 bikes at school. Each bike has 2 wheels. Skip count by twos to find how many wheels there are. How many wheels are there in all?



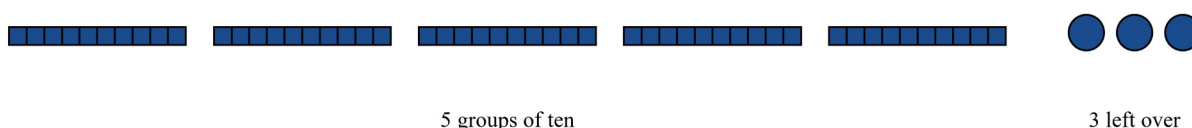
9 bikes. Each bike has 2 wheels.

Q11. A big count. There are 118 blocks in the big box.

- Make groups of 10 blocks. How many full groups do you make?
- How many blocks are left over?
- Skip count by tens, then count on. How many blocks are there?

Q12. Which way is best? Sam counts 60 buttons one by one. Mia counts the same 60 buttons in groups of 10. Which way is best? Why? Talk about it with a friend.

Q13. Is Ben right? Ben has 5 groups of ten blocks and 3 blocks left over. He writes 43. Is Ben right? Fix it if he is not.



5 groups of ten blocks and 3 blocks left over.

Q14. Your turn. Your teacher gives you a big handful of beans.

- How many beans do you think you have?
- Make groups of 10. Skip count to find how many beans you have.

(c) Write your number. What does each digit tell you?

Answers

Q1. (a) Equal. (b) Not equal. (c) Equal.

Q2. 10 groups. Skip count: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20.

Q3. 7 groups. Skip count: 5, 10, 15, 20, 25, 30, 35.

Q4. (a) 5. (b) 6. (c) 56. (d) The digit 5 tells you about the groups of ten. The digit 6 tells you about the ones.

Q5. (a) 6 groups of ten and 3 ones. (b) 9 groups of ten and 0 ones. (c) 90.

Q6. (a) 4. (b) 5. (c) 45. (d) \$45.

Q7. (a) 10, 20, 30, 40. (b) 43 birds.

Q8. (a) 12. (b) 0. (c) 40, 50, 60, 70, 80, 90, 100, 110, 120.

Q9. 45 shells. Skip count: 5, 10, 15, 20, 25, 30, 35, 40, 45.

Q10. 18 wheels. Skip count: 2, 4, 6, 8, 10, 12, 14, 16, 18.

Q11. (a) 11. (b) 8. (c) 118 blocks.

Q12. One answer: groups of 10 are best, because skip counting by tens is fast. You do not have to count one by one.

Q13. No. 5 groups of ten is 50, and 3 ones is 3 more. 53, not 43.

Q14. Answers will not all be the same. Check: the digits match the groups of ten and the ones.

Teacher note

Curriculum map. This subtopic owns VC2M1N03 in full (TOC §3, §4): quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting. Delivery is through original materials contexts, not through the elaborations one by one (D11): E01 (count a large collection using groups of fives or tens, skip count, record the amount, connect the digits to the grouped materials when using groups of 10) → Example 1, Q3, Q4, Q7, Q8, Q9; E02 (group in tens for efficient counting and connect the digits to the groups of tens and ones, as with pencils or images of birds in a tree) → Example 1, Q5, Q7 (the birds-in-a-tree picture); E03 (count a large collection of Australian \$1 coins by stacking in piles of 10, skip count in tens and include the leftover coins) → Example 2, Q6. The CD’s “number knowledge” is the tens-and-ones structure from 1B, applied here as the digit-to-group connection; the CD’s “to at least 120” is met by collections at 118 (Q11) and 120 (Q8), handled as 11 or 12 groups of ten through grouping and skip counting — no hundreds place-value language, which belongs to Level 2 VC2M2N01/VC2M2N02 (D3). Skip counting itself is not taught as new here: it is applied from 3B (VC2M1A01), taught earlier in the recommended sequence (D5), and all three count-on paths named in the achievement standard (twos, fives, tens) are used.

Spine representations. The hundreds chart and the number line are 1A’s two spine representations for Chapter 1, and both recur in 1C (TOC §3 Chapter 1 note): the hundreds chart supports the skip counting in Q8, and the number-line jumps appear in the teaching sequence and Q2.

No operation symbols in this section. +, – and = are introduced in 2A (VC2M1N04 . E04), which is taught after 1C in the recommended sequence (D5); they are the only operation symbols in the book (D9). 1C therefore carries no operation symbols at all: group counts are recorded as numerals, drawings and skip-count lists, and relations are stated in words (“5 groups of ten is 50”). No $\times$ or $\div$ anywhere in the book (D9); equal groups here stay verbal and visual, which is also how 2C (VC2M1N06) later models sharing and grouping.

Materials. Pencils or beans; cups; buttons; crayons; blocks; beads; shells; a jar; play-money \$1 coins (real Australian \$1 coins if the school permits); paper; the hundreds chart and number line from 1A. Every task names its materials (TOC §6).

Assumed Foundation skill, rehearsed only: quantifying and comparing collections to 20 (VC2MFN03), plus counting on (VC2MFN01) — rehearsed in the opening one-by-one-versus-grouped count and in every count-on step, not taught as new and not assessed as a Level 1 outcome (D3).

Also drawn on (already taught, in the recommended sequence): numbers to 120 — naming, reading, writing, ordering and locating — 1A (VC2M1N01); partitioning one- and two-digit numbers into tens and ones — 1B (VC2M1N02); skip counting patterns in twos, fives and tens — 3B (VC2M1A01). 1C is the quantifying application of all three.

Level 2 destination (named only, not taught — D3): VC2M2N05 (multiplication and division). Equal groups counted by a repeated step is the root of multiplicative reasoning (TOC §5); VC2M2N02 (regrouping and renaming) also grows from the groups-of-ten idea secured here.

Assessment. Chapter checkpoint T1 (18 marks across VC2M1N01, VC2M1N02, VC2M1N03): teacher-read; hundreds chart, number line and base-ten materials supplied; numerals and short drawings recorded (TOC §7). Q4/Q5-style digit-connection items and one collection-over-100 count are the natural 1C contribution to T1.

Data note. Every collection in this section is invented class data constructed for the example or task; no external datum is asserted, so no source line is required beyond the curriculum quotation in the front matter (TOC §6). The \$1 coins are real Australian coins used as materials; no fact about them is asserted. All counts stay at or below 120 (D8). No chance language (D6), no metric units (D7), no clock-face reading, no fractions, no operation symbols (see above).

Vocabulary gate record (DJB 2026-08-18). Student-facing text — everything from “What we are learning” to “Answers” — is at or below the Yr1 ladder ceiling (rank 1), verified with `load_ladder/check_text/tokenize` from `S:\Files\projects\mcq-system\reports\vocab_level_check.py`. Result: CLEAN — zero words above Yr1 not covered by an exemption. The pandoc fence lines (`::: {custom-style="Source Code"} :::`) are render markup, not body text, and are excluded from the check; the display content inside them is checked. Curriculum-exempt words retained per VOCABULARY_LEVEL.md exemption 1: *partition* (defined at first use, with a pronunciation guide), *digit(s)* (defined; VCAA’s own word in VC2M1N03.E01 and .E02), *equal groups* (defined in the body), *collection(s)* and *skip counting* (at or below Yr1 on the ladder as well), *question* (curriculum word via VC2M1ST01.E01 and VC2M1ST02.E02), *hundreds chart* (curriculum words via the VC2M1N01 content description and .E03), and *example* (curriculum word via elaborations including VC2M1N01.E01). The CD’s token *leftover* (VC2M1N03.E03, placed Yr2) is written as the two at-level words *left over* throughout the student-facing text. The heading’s *quantify*, *collections*, *equal groups* and *skip counting* are fixed by the TOC section title. Unplaced tokens are only *par-tish-un* (pronunciation guide), *Sam* (an invented child’s given name — proper noun, exemption 3) and *why* (function word); none is a violation. No general word above Yr1 remains. The front matter and this Teacher note are teacher-facing metadata and are not vocabulary-gated (WORD_LEVEL_POLICY Rule 3); the whole-file build gate (`_pool/vocab_check.py`, ceiling Yr1, `--cds maths_1.json`) flags inside this file only that metadata register and *examples* in the “Worked examples” heading, an inflection of the curriculum word *example* missed by the gate’s literal-form exemption (same precedent as 6B’s record).

Checkpoint CP1

Mathematics 1 · Level 1 · Chapter 1 — Number · Checkpoint CP1. The topic checkpoint for Chapter 1 — row T1 of TOC §7, filed as CP1 in the build. It scores the three CDs that Chapter 1 owns (TOC §4, rows 1–3), **6 marks per CD** (TOC §7), at the back of the chapter. Administer it after subtopic 1C has been taught; in the recommended teaching sequence (TOC D5) that is fifth of fifteen, and 3B’s skip counting in twos, fives and tens is already available for 1C and for this checkpoint (D5).

CDs scored — quoted verbatim. Source for all three: Victorian Curriculum F–10 Version 2.0, Mathematics (VCAA), Level 1, Number, via `maths_1.json` (VCAA export retrieved 2026-07-29).

- VC2M1N01 (owned by 1A — 6 marks): “recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts”
- VC2M1N02 (owned by 1B — 6 marks): “partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones”
- VC2M1N03 (owned by 1C — 6 marks): “quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting”

Achievement-standard extracts — quoted verbatim from the same source. The Marking guide repeats the relevant extract beside every scored item (TOC §7).

- VC2M1N01: “students connect number names, numerals and quantities, and order numbers to at least 120.”
- VC2M1N02: “They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones.”
- VC2M1N03: “Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120.”

Administration — exactly as TOC §7 row T1 and D17 specify. This is a classroom instrument, not an exam.

- **Teacher-read:** the teacher reads every item aloud. Recording is short written or drawn work — numerals, marks on a line, drawings and filled-in frames.
- **Materials on desk:** hundreds chart, number line and base-ten materials (ten-sticks and ones), plus paper and pencil. For Q8 each student or pair also needs a pile of 107 single ones (loose blocks).
- **Timing:** not timed. There is no timed paper anywhere in this book (D17).
- **Calculator:** no calculator. There is no calculator anywhere in this book (D17).
- **Observed:** Q5 and Q8 are hands-on items; the teacher observes the making and the skip counting as evidence while the student works.

Total: 18 marks — 6 for VC2M1N01, 6 for VC2M1N02, 6 for VC2M1N03. The mark scheme is the ## Marking guide section below.

The front matter above and the Marking guide below are teacher-facing. Student-facing text runs from “Words we use” to Q10. No +, − or = appears in the student-facing text: those three symbols are introduced in 2A (VC2M1N04 . E04), which is taught after this checkpoint is administered (TOC D5, D9). No × or ÷ anywhere in the book (D9). Every numeral is at or below 120 (D8).

Words we use

You know these words from your Number work.

- **numeral** (say: new-mer-al) — how we write a number: 7, 16 and 107 are numerals
- **number line** — numbers in order on a line
- **hundreds chart** — a big table of numbers from 0 to 99
- A **ten** is a group of 10 ones.
- A **ten-stick** is a stick of 10 cubes. 1 ten-stick is 1 ten.
- The **ones** are the cubes not in a ten-stick. Each one is 1.

- A **digit** is one of 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9.
- To **partition** (say: par-tish-un) is to break a number into parts. The parts still make the same number.
- **Equal groups** have the same number in each group.
- To **skip count** is to count by jumps: 5, 10, 15, 20 ...
- **Left over** means not in a full group.

Ready?

Your teacher reads each task. Listen. Use the things on your desk. Write numerals and draw. Take your time. Do your best!

Part A — Numbers to 120

Q1. Write the numeral for each name.

- (a) forty-three
- (b) one hundred and twelve

Q2. Put these numerals in order, from least to most.

61 16 9 106

You can use your hundreds chart to help.

Q3. Look at the number line. Mark 47.

40 41 42 43 44 45 46 47 48 49 50 |—|—|—|—|—|—|—|—|—|

Q4. Mia says sixteen and sixty are the same number. Is Mia right? Say why.

Part B — Tens and ones

Q5. Make 46 with ten-sticks and ones. Draw what you made.

You need: ten-sticks and ones.

46 is tens and ones.

Q6. Partition 46 a different way. You can use ten-sticks and ones to check.

- (a) 46 is 3 tens and ones.
- (b) 46 is 2 tens and ones.

Q7. Partition 9 two ways.

9 is and .

9 is and .

Part C — Big counts

Q8. There are 107 blocks in the big box.

You need: the big box of 107 blocks, paper.

- (a) Make groups of ten. How many full groups do you make?
- (b) How many blocks are left over?

(c) Skip count the full groups, then count on. How many blocks are there? Write the numeral. You can use your hundreds chart to help.

Q9. These beans are in equal groups. Each group has 5 beans. Skip count by fives. How many beans are there?

group 1 ● ● ● ● ● group 2 ● ● ● ● ● group 3 ● ● ● ● ● group 4 ● ● ● ● ● group 5 ● ● ● ● ● group 6 ● ● ● ● ●

Q10. Draw 73 with groups of ten and ones.

In 73, the digit 7 tells you about the . The digit 3 tells you about the .

Marking guide

Teacher-facing. Checkpoint CP1 is a classroom instrument, not an exam (TOC §7, D17): teacher-read, materials on desk (hundreds chart, number line, base-ten materials), not timed, no calculator, recording by numerals and short drawings. Mark against the rubric below. The rubric is written in the language of the achievement-standard extract carried in the authority file for each CD, quoted verbatim beside its items (TOC §7). Where an item calls for reasoning, the explanation is scored as well as the answer — a rubric that scores only the answer fails the CD (TOC §7).

Marks by CD — 6 marks per CD the chapter owns (TOC §7).

CD	Subtopic	Items	Marks
VC2M1N01	1A	Q1–Q4	6
VC2M1N02	1B	Q5–Q7	6
VC2M1N03	1C	Q8–Q10	6
Checkpoint CP1 total		Q1–Q10	18

Observed items. Q5 and Q8 are hands-on and observed. The recorded drawing or numeral carries the mark; where a drawing is incomplete but the teacher observed the correct making and count, award the mark.

VC2M1N01 — items Q1 to Q4 (6 marks)

Achievement-standard extract, quoted verbatim: “students connect number names, numerals and quantities, and order numbers to at least 120.” Source: Victorian Curriculum F–10 Version 2.0, Mathematics (VCAA), Level 1, Number, VC2M1N01, via `maths_1.json` (VCAA export retrieved 2026-07-29).

Item	Expected response	Mark	What it evidences
Q1(a)	43	1	Connects a number name and its numeral.
Q1(b)	112	1	Connects a number name and its numeral, beyond 100 and at or below 120.
Q2	9, 16, 61, 106	2	Orders numbers to at least 120. 2 marks for the full order correct; 1 mark where least and most are both in the correct places. The 16/61 pair samples the numbers that look and sound similar named in VC2M1N01.E01.
Q3	A mark at 47 on the line	1	Represents a number by its position on a number line.
Q4	“No / not right” with a reason	1	Connects number names, numerals and quantities. The explanation is scored as well as the answer (TOC §7; the 1A Q12 pattern). Accept: sixteen is 16 and sixty is 60; 16 comes just after 15 and 60 comes just after 59; they are not the same number. A correct verdict with no reason scores 0; a wrong

Item	Expected response	Mark	What it evidences
verdict scores 0.			

VC2M1N02 — items Q5 to Q7 (6 marks)

Achievement-standard extract, quoted verbatim: “They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones.” Source: Victorian Curriculum F–10 Version 2.0, Mathematics (VCAA), Level 1, Number, VC2M1N02, via `maths_1.json` (VCAA export retrieved 2026-07-29).

Non-standard partitions are scored **separately** from standard tens-and-ones (TOC §3, Chapter 1 note): Q5 carries the standard partition, Q6 carries the non-standard partitions, and they are separate marks (VC2M1N02 . E02 illustrates both — “for example, recognising 35 as 3 tens and 5 ones or as 2 tens and 15 ones”).

Item	Expected response	Mark	What it evidences
Q5 drawing	4 ten-sticks and 6 ones	1	Demonstrates the partition with materials — standard tens-and-ones.
Q5 frame	46 is 4 tens and 6 ones	1	Names the tens-and-ones partition.
Q6(a)	16	1	Non-standard partition: the same number in different parts.
Q6(b)	26	1	Non-standard partition: the same number in different parts.
Q7	Any two different pairs that make 9 (e.g. 5 and 4; 8 and 1)	1 + 1	A one-digit number partitioned in different ways. One mark for each correct pair; if the same pair is written twice, award 1 mark in total.

VC2M1N03 — items Q8 to Q10 (6 marks)

Achievement-standard extract, quoted verbatim: “Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120.” Source: Victorian Curriculum F–10 Version 2.0, Mathematics (VCAA), Level 1, Number, VC2M1N03, via `maths_1.json` (VCAA export retrieved 2026-07-29).

Item	Expected response	Mark	What it evidences
Q8(a)	10	1	Partitions a collection into equal groups of ten.
Q8(b)	7	1	Keeps track of the ones left over.
Q8(c)	107	1	Skip counts in tens and counts on to quantify a collection above 100.
Q9	30	1	Skip counts in fives to quantify a collection.
Q10 drawing	7 groups of ten and 3 ones	1	Represents a number as equal groups of ten and ones.
Q10 frame	The digit 7 tells about the tens (groups of ten); the	1	Connects the digits in the number to the grouped

Item	Expected response	Mark	What it evidences
	digit 3 tells about the ones		materials (VC2M1N03.E01).

What this checkpoint does not assess

Per TOC §7 “What is not assessed”: no Foundation outcome (D3), no Level 2 outcome (D3), no probability (D6), no metric measurement (D7), no clock-face reading, no fractions. No operation symbols appear in any item — +, − and = are introduced in 2A (VC2M1N04.E04) — and there is no $\times$ or $\div$ anywhere in the book (D9). Every numeral is at or below 120 (D8).

Records

Data note. Every item context is an everyday classroom object (blocks, beans, ten-sticks, hundreds chart, number line); Mia is an invented child’s given name (TOC §6). No external datum is asserted, so no source line is required beyond the curriculum quotations in this file (TOC §6). Aboriginal and Torres Strait Islander content is excluded (CONTENT_POLICY Rule 1); none of the elaborations drawn on for these items carries it, and none is supplied.

Figures. None. Every representation in this file is a `::: {custom-style="Source Code"}` block, so the instrument is self-contained; no diagram file is referenced.

Symbol and range check. No +, −, =, $\times$ or $\div$ in the student-facing text (D9 — the only operation symbols in the book are introduced in 2A, after this checkpoint is administered). Every numeral is at or below 120 (D8). No chance language (D6), no metric units (D7), no money, no clock-face reading, no fractions.

Vocabulary gate record (2026-08-23). Student-facing text — everything from “Words we use” to Q10 — is at or below the Yr1 ladder ceiling (rank 1), verified with `load_ladder/check_text/tokenize` from `S:\Files\projects\mcq-system\reports\vocab_level_check.py` using the same ceiling, exemption and conservative-stem rules as `_vocab_gate_1B.py`, with the conservative lookup extended to singular~plural pairs per DJB 2026-08-16 (a text using *numeral* is using the curriculum’s *numerals*). Result: CLEAN — zero general words above Yr1. The gate’s only flags are the five tokens *numeral*, *numerals*, *digit*, *hundreds* and *hundred* — all curriculum words covered by VOCABULARY_LEVEL.md exemption 1 (detail below). Unplaced tokens are only *new-mer-al* and *par-tish-un* (pronunciation respellings — same handling as 1A’s *new-mer-al* and *kahn-jee*). At-level wording was chosen throughout so that no general word above Yr1 remains (student headings use *Part A/B/C*, not the Yr3-placed instrument word; “Take your time.” stands in for a Yr4-placed timing word; “the things on your desk” stands in for a Yr2-placed equipment word). Curriculum-exempt words retained per VOCABULARY_LEVEL.md exemption 1, each defined at first use in “Words we use” where student-facing: *numeral(s)* (verbatim in the CD and achievement-standard extract of VC2M1N01), *chart(s)* / *hundreds (chart)* (verbatim in the CD and VC2M1N01.E03; *hundred* also required by E01’s naming to at least 120), *digit(s)* (verbatim in VC2M1N03.E01 and .E02), *partition(ed)* and *different* (verbatim in the VC2M1N02 CD), *equal groups* and *skip count(ing)* (verbatim in the VC2M1N03 CD), *collection(s)* (verbatim in the VC2M1N03 CD and achievement-standard extract; appears in this register only, not in the student text), and *tens/ones* (at or below the ceiling via *ten/one*). *Mia* is an invented child’s given name (proper noun, exemption 3); *par-tish-un* and *new-mer-al* are pronunciation respellings and are unplaced, as in 1A–1C. Teacher-facing registers (this front matter and the Marking guide) are not vocabulary-gated (WORD_LEVEL_POLICY Rule 3) and carry the §7 administration wording — *checkpoint*, *calculator*, *materials*, *timing* — exactly as §7 specifies it.