BRIGHTER MATHS

Creating a whole generation of kids that are confident in maths

BUILDING A FOUNDATION OF MATHS

PART 3 OF 3

SAMPLE - LESSON 2
TIER 1, 2 & 3

ORANGE LEVEL TWO

MATHS AUSTRALIA

Lesson 2 : Sequencing

Note for the educator: This lesson focuses on sequencing numbers, a skill that relies on the student's foundational understanding of place value. The core concepts are the vocabulary of "smallest" and "largest," and the process of ordering numbers from left to right based on their value. The I-CRAVE methodology is critical here; by starting with concrete blocks, students can visually and physically compare the size of numbers before moving to the abstract task of ordering numerals. This lesson also introduces the idea of sequencing as pattern-making (e.g., counting by ones or skip counting), which will be explored further in later lessons.

Learning Intention: We are learning to sequence numbers from smallest to largest and largest to smallest by understanding their place value.

Success Criteria (I know I can...)

I can use the words "smaller than" and "larger than" to compare two numbers.

I can use blocks to build and compare a set of numbers.

I can arrange a set of blocks in order from smallest to largest.

I can arrange a set of blocks in order from largest to smallest.

I can write a sequence of numerals in order from smallest to largest or largest to smallest.

Materials & Resources

Integer Block Kit (H, T, U blocks)

Whiteboard or large paper & markers

Individual whiteboards/paper & pencils/crayons

Numeral cards (from flashcard resources)

Orange Level Two Student Workbook (Worksheets for Lesson (Worksheets 2)

Curriculum Alignment

Australian Curriculum (Year 2): **AC9M2N01** "recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines".

NSW Curriculum (Stage 1): **MA1-RWN-01** "applies an understanding of place value... to read, write and order two- and three-digit numbers".

New Zealand Curriculum (Phase 1): Supports the content description for Year 2 to "compare and order whole numbers up to at least 100" and for Year 3 to "compare and order whole numbers up to at least 1,000".

Victorian Curriculum (Level 2): **VCMNA104** "Recognise, model, represent and order numbers to at least 1000".

Western Australia (Year 2): Aligns with the objective to "Recognise, model, represent and order numbers to at least 1000".

Multi-Tiered System of Supports (MTSS)

Tier 1 (All Students): I-CRAVE structure. Explicit teaching of vocabulary ("smallest," "largest," "sequence"). Concrete building and comparing of numbers before ordering.

Tier 2 (Targeted Support): Focus on sequencing single-digit numbers first, then two-digit numbers, before moving to three-digit numbers. Use a place value chart to help compare numbers.

Extension: Challenge students to sequence four or five numbers at a time, or to sequence numbers with the same hundreds digit (e.g., 345, 312, 389), requiring them to look at the tens place.

Universal Design for Learning (UDL) considerations

Engagement: Hands-on building and physical ordering of blocks, relating sequencing to real-life situations (e.g., lining up by height).

Representation: Concrete blocks showing clear size differences, drawings, written numerals, and explicit use of vocabulary.

Action & Expression: Students can build, order, draw, write, and explain their reasoning for placing numbers in a particular sequence.

Phase	Teacher Actions (Explicit Instruction)	Student Actions, Verbalisation	Assessment For Learning	UDL/MTSS Notes
Identify	Review place value. Say: "We know how to build big numbers. Today we're going to put them in order. This is called *sequencing*." Ask: "What do the words 'smallest' and 'largest' mean?" Use hand gestures to illustrate big and small.	Recall place value concepts. Listen to the introduction of "sequencing." Verbalise their own definitions of smallest and largest.	Observe student's confidence with place value. Gauge their understanding of the core vocabulary.	**Tier 1:** Activate prior knowledge. Introduce new vocabulary with physical gestures. **Tier 2:** Start with a simple comparison of two blocks (e.g., 2-block and 5-block) and ask, "Which is smaller? Which is larger?" **Extension:** Ask, "If you are lining up for a race, do you want the smallest time or the largest time?"
Concrete	Say: "Let's build three numbers: eight, three, and six." Guide the student to get the correct blocks. Say: "Look at the blocks. Let's put them in order from smallest to largest. Which block is the smallest?" Guide them to place the 3-block on the left. Say: "Which block is next? Which is the largest?" Guide them to place the 6-block then the 8-block. Repeat the process, asking them to order the same blocks from largest to smallest.	Build the numbers 8, 3, and 6 using the correct Integer Blocks. Physically arrange the blocks in order from smallest to largest (3, 6, 8). Physically rearrange the blocks in order from largest to smallest (8, 6, 3). V erbalise the sequence: "Three is the smallest, then six, then eight."	Observe the student's ability to select the correct blocks. Check if they can correctly order the physical blocks based on their size/length.	**Tier 1:** Use concrete blocks so the comparison is visual and tactile. Start with single-digit numbers. **Tier 2:** Use only two numbers to order at first (e.g., "Put 5 and 2 in order from smallest to largest"). **Extension:** Give the student four or five blocks to order.
Representational	Say: "Now, let's draw what we just did." Model drawing the ordered blocks (e.g., 3, 6, 8). "I'll draw my pink 3-block, then my purple 6-block, then my brown 8-block, in a line from smallest to largest." Say: "Now, build 12, 15, and 13. Put them in order from smallest to largest. Then draw your ordered blocks."	Watch the teacher's model. Draw representations of the ordered blocks, using the correct colours and attempting to show proportional size. Complete workbook pages that involve drawing or circling the smallest/largest in a set.	Check that the student's drawings reflect the correct order. Observe if the drawings are reasonably proportional and use the correct colours.	**Tier 1:** Model the drawing process clearly. The workbook provides structured practice. **Tier 2:** Provide outlines of the blocks for the student to colour in the correct order. **Extension:** The student draws a set of three blocks in a random order and has a partner draw them in the correct sequence.
Abstract	Say: "Now we write the code for our sequence." For the ordered blocks 3, 6, 8, write *3, 6, 8* on the board. "I've written the numbers from smallest to largest, separated by commas." Say: "Here are the numbers 50, 10, 20. Write them in order from smallest to largest." Guide them if needed by suggesting they think of them as "5 tens, 1 ten, 2 tens." Guide students through workbook pages (**2,1**, **2,2**) that require writing number sequences.	Write a sequence of numerals in the correct order (e.g., 3, 6, 8). Write sequences for two-digit and three-digit numbers. C omplete workbook pages by filling in missing numbers or writing numbers in order.	Assess the student's ability to order abstract numerals without the aid of blocks. Check for understanding of place value when comparing (e.g., looking at the tens digit first).	**Tier 1:** When ordering 2 and 3-digit numbers, explicitly connect back to place value. E.g., "Why does 245 come before 312? Because 2 hundreds is less than 3 hundreds."
Verbal & Combined Practice	Say: "I am going to give you three numbers: two hundred ninety-eight, one hundred fifty-seven, and three hundred sixty-two." Say: "First, build each number. Then, arrange them from largest to smallest. Now, write the sequence."	Listen to the numbers. Build 298, 157, and 362 with blocks. Physically arrange the three groups of blocks in order from largest to smallest. Write the sequence 362, 298, 157. Explain their reasoning: "362 is largest because it has the most hundreds."	Assess the student's ability to translate from a verbal name to a concrete model and then order them correctly. Listen for a clear explanation of how they determined the order.	**Tier 1:** Use multi-step instructions to check for fluency across all modes. Encourage students to articulate their reasoning based on place value. **Tier 2:** Use two-digit numbers for this combined task. **Extension:** Challenge students to sequence numbers with the same hundreds digit (e.g., 345, 312, 389).
Explicit Instruction & Review	Say: "Great work with sequencing today! We learned how to put numbers in order from smallest to largest and largest to smallest by looking at their place value. We always look at the hundreds first!" Write 150, 450, 250 on the board. Ask: "Quick! Which is the smallest? Which is the largest?"	Recall the process of sequencing. Recall that comparing starts from the largest place value. Answer: "150 is the smallest, 450 is the largest."	Orange Level Two Student Workbook (Worksheets for Lesson 2). Assess the student's final independent work.	**Tier 1:** Reiterate the key "rule" of sequencing: start comparing from the largest place value on the left. This solidifies the main concept.

ORANGE LEVEL TWO

STUDENT WORKBOOK

Metric Edition

Student's Name

By Esther White

Scope & Sequence

ORANGE LEVEL TWO

Completion Checklist

Check off each lesson as you complete it.

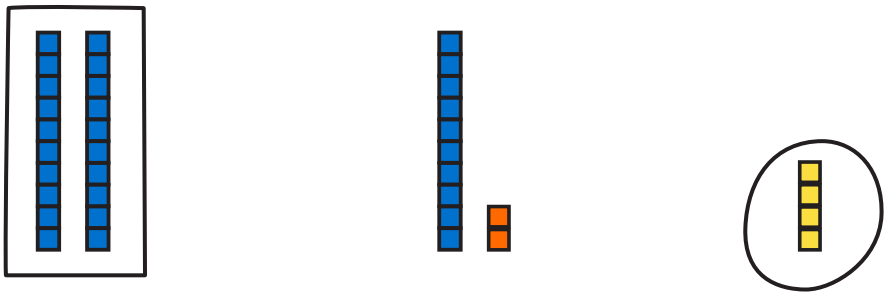
ORANGE LEVEL TWO

	1	2	3	4	5	6
1A - Place Value (Hundreds, Tens, Units)	☐	☐	☐	☐	☐	☐
1B - Place Value (Hundreds, Tens, Units)	☐	☐	☐	☐	☐	☐
2 - Sequencing	☐	☐	☐	☐	☐	☐
3 - Inequalities	☐	☐	☐	☐	☐	☐
4 - Rounding To Ten, Estimation	☐	☐	☐	☐	☐	☐
5 - Multi-Digit Addition (Place-Value Notation)	☐	☐	☐	☐	☐	☐
6 - Addition With Regrouping	☐	☐	☐	☐	☐	☐
7 - Skip Counting By Two	☐	☐	☐	☐	☐	☐
8 - Skip Counting By Ten	☐	☐	☐	☐	☐	☐
9 - Skip Counting By Five	☐	☐	☐	☐	☐	☐
10 - Column Addition	☐	☐	☐	☐	☐	☐
11 - Money - Decimal Point And Dollars	☐	☐	☐	☐	☐	☐
12 - Rounding To Hundreds	☐	☐	☐	☐	☐	☐
13 - Addition - Money	☐	☐	☐	☐	☐	☐
14 - Subtraction - Money	☐	☐	☐	☐	☐	☐
15 - Ordinal Numbers, Tally Marks	☐	☐	☐	☐	☐	☐
16 - Bar Graphs, Line Graphs	☐	☐	☐	☐	☐	☐
17 - Gauges, Thermometers	☐	☐	☐	☐	☐	☐
18 - Telling Time - Minutes Only	☐	☐	☐	☐	☐	☐
19 - Telling Time - Hours Only	☐	☐	☐	☐	☐	☐
20 - Telling Time - Hours And Minutes Combined	☐	☐	☐	☐	☐	☐
21 - Measurement - Perimeter, Linear Measure	☐	☐	☐	☐	☐	☐
22 - Thousands, Place-Value Notation	☐	☐	☐	☐	☐	☐
23 - Rounding To Thousands	☐	☐	☐	☐	☐	☐
24 - Multiple Digit Column Addition	☐	☐	☐	☐	☐	☐
25 - More Multiple Digit Column Addition	☐	☐	☐	☐	☐	☐
26 - Multiple Digit Subtraction	☐	☐	☐	☐	☐	☐

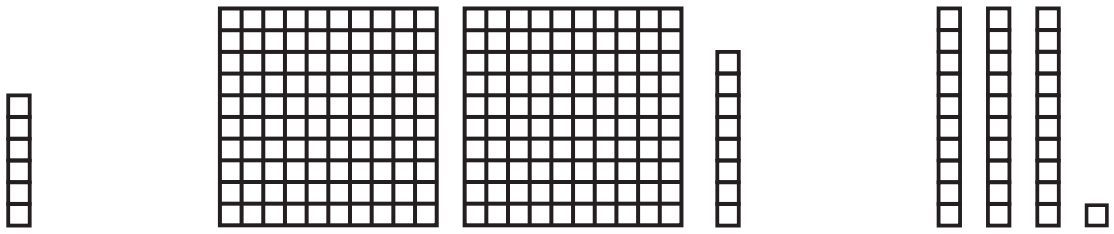
Sequencing

Build the following and place them in order left to right, smallest to largest. On this page, colour the blocks and then draw a circle around the smallest number of blocks shown, and a rectangle around the largest number of blocks. On the following page, build then colour the numbers shown as you write them in order from left to right, smallest to largest.

Example:



4 , 12 , 20



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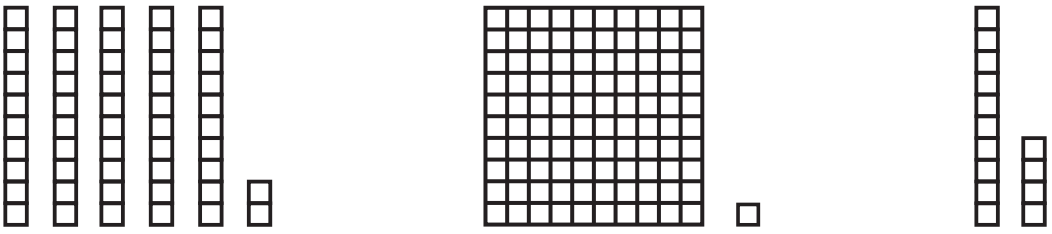

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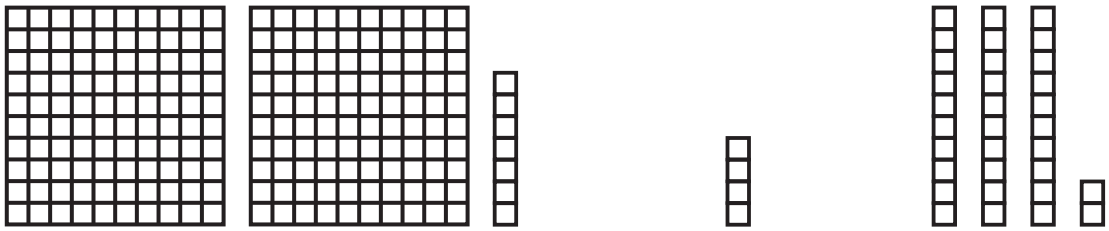

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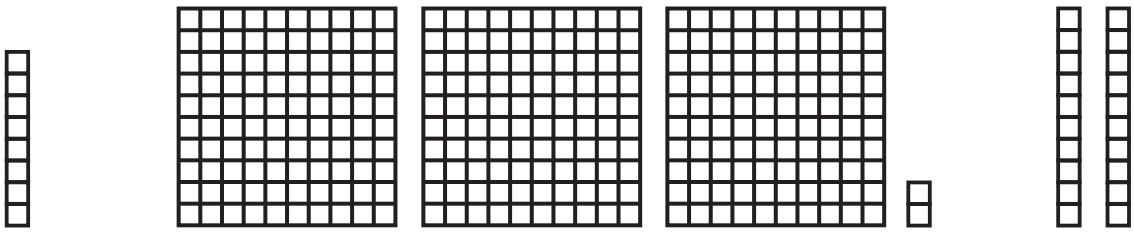

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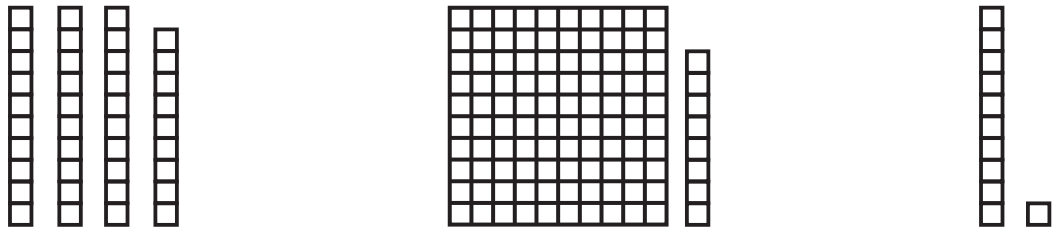

_____, _____, _____

Sequencing

Draw the following and write them in the correct order from left to right, smallest to largest.

4 55 162

____, ____, ____

16 3 136

____, ____, ____

11 54 341

____, ____, ____

79 78 75

___,___,___

17 15 51

___,___,___

152 65 98

___,___,___

Sequencing

Build the following to show the sequence then fill in the blanks with the correct numbers for each sequence to continue.

5 , 6 ,___,___, ___, 10

---

8 ,___,___, 11 , 12 ,___

---

6 ,___,___, 3 ,___ ,___, 0

---

10 , 9 ,___,___,___,___

___,___, 6 , 7 , 8 ,___,___

---

71 ,___,___, 74 ,___

34 , 36 ,___,___, ___ ,___

___, 15 ,___, 17 ,___,___

120,___,118,___,116,___,___

___,___, 7 ,___,___, 4 , 3

Sequencing

Fill in the blanks with the correct numbers for each sequence. Write underneath what you did with each sequence.

Example:

3 , 4 , 5 , 6 , 7 , 8 , 9 , 10

I added one to each number

---

12 , 14 , ___ , ___ , 20 , ___ , ___ , ___

---

1 , ___ , 5 , ___ , ___ , 11 , 13 , ___

___ , 10 , 12 , ___ , ___ , ___ , 20 , ___

---

112 ,___,___, 115 ,___,___,___,___

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200 ,___, 204,___, ___ , ___ , 212

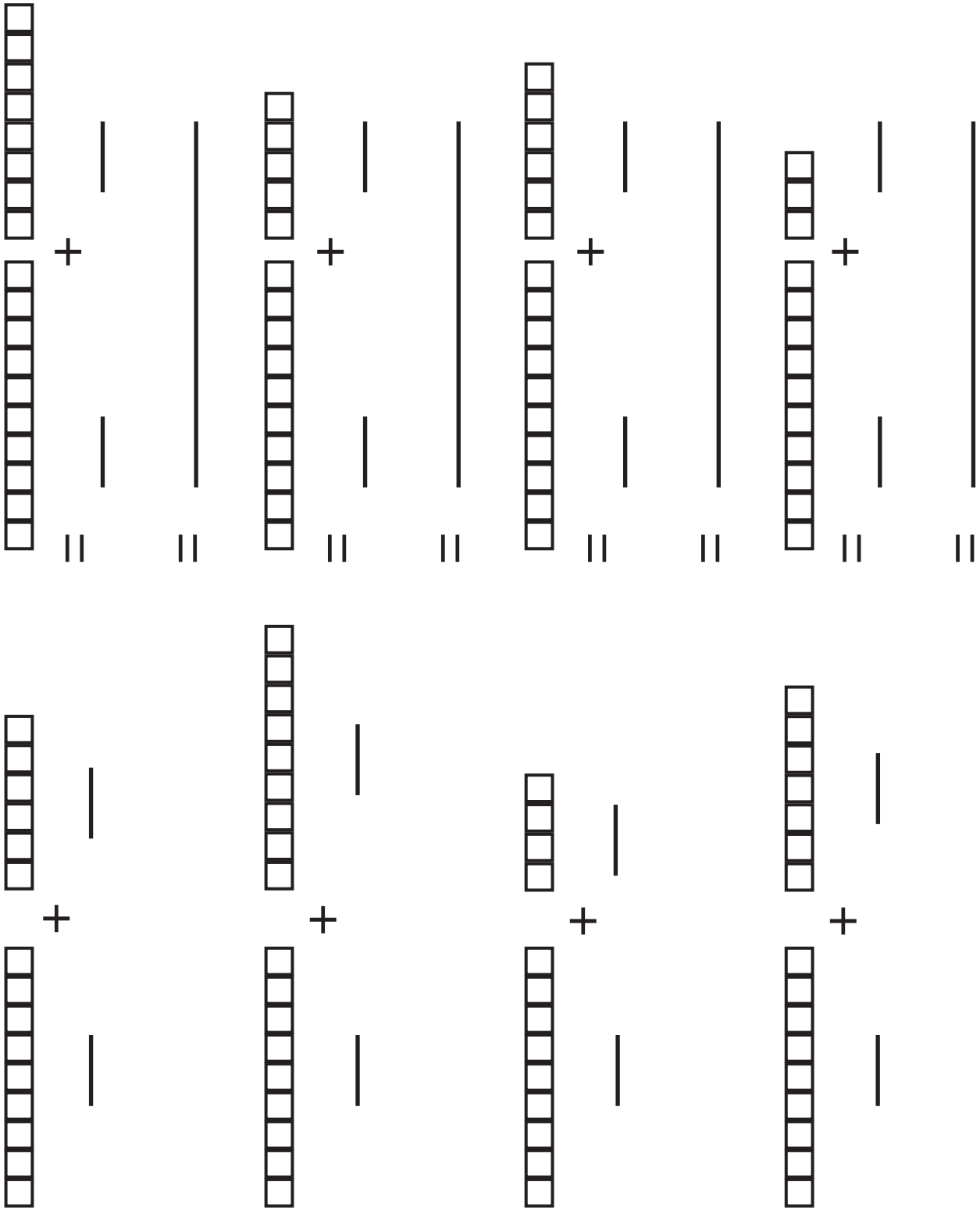
---

22 ,___,___, 16 ,___,___ , 10 ,___

___, 6 , 9 ,___,___,___, 21

Sequencing - Cumulative Review

Build the following questions and match the maths symbols to the answers shown with the blocks. Colour the blocks then write the maths symbols underneath to match the blocks.



Build, write, and say your answers to the following questions.

$$\begin{array}{r} 7 \\ +\ 9 \\ \hline \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ +\ 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +\ 2 \\ \hline \\ \hline \end{array} \qquad \begin{array}{r} 9 \\ +\ 4 \\ \hline \\ \hline \end{array}$$

$6 + 9 = \_\_$ $\qquad$ $9 + 3 = \_\_$

$9 + 9 = \_\_$ $\qquad$ $9 + 0 = \_\_$

Bethany ate nine grapes, and then she ate five more. How many grapes did she eat altogether?

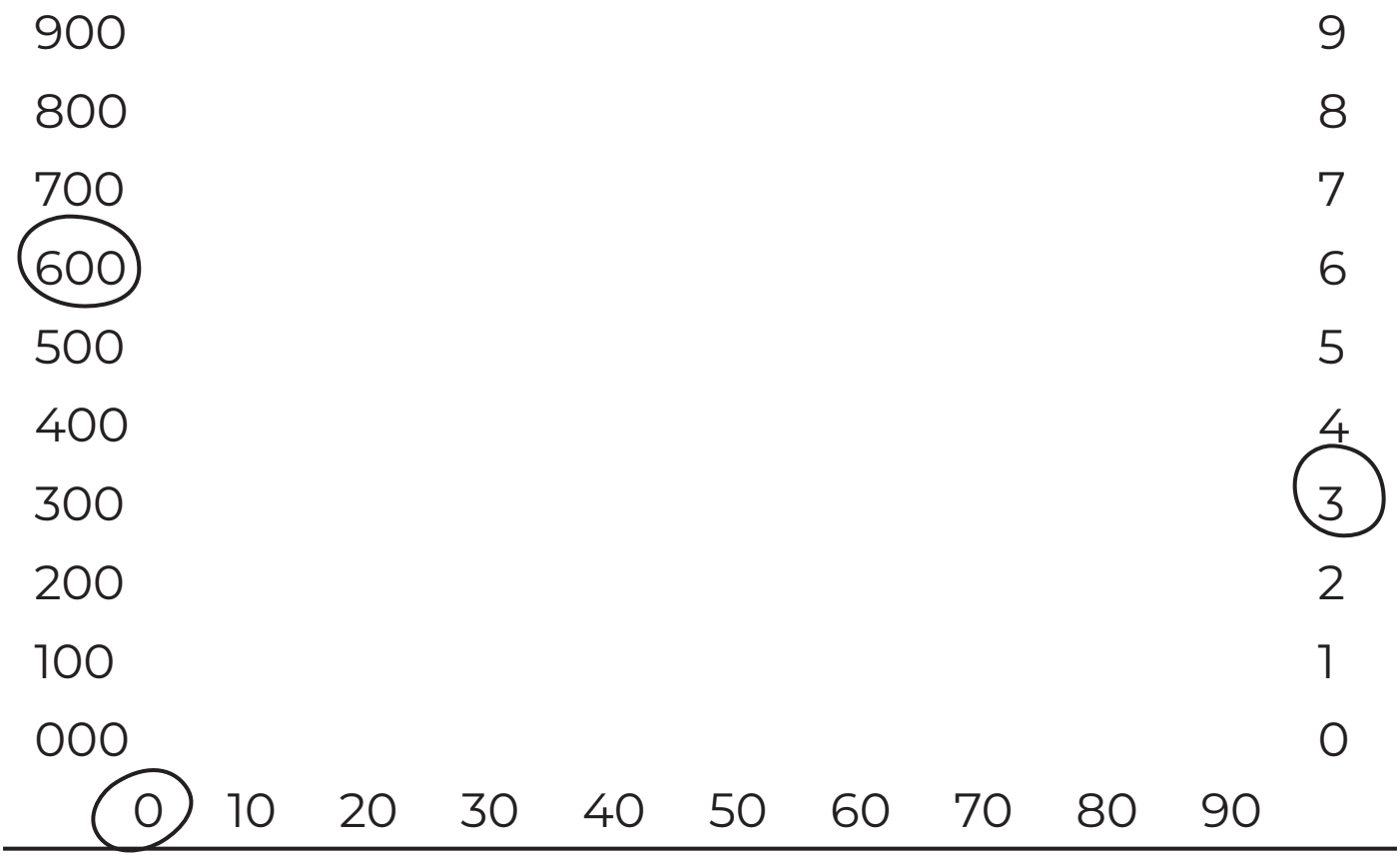
$\_\_ + \_\_ = \_\_$

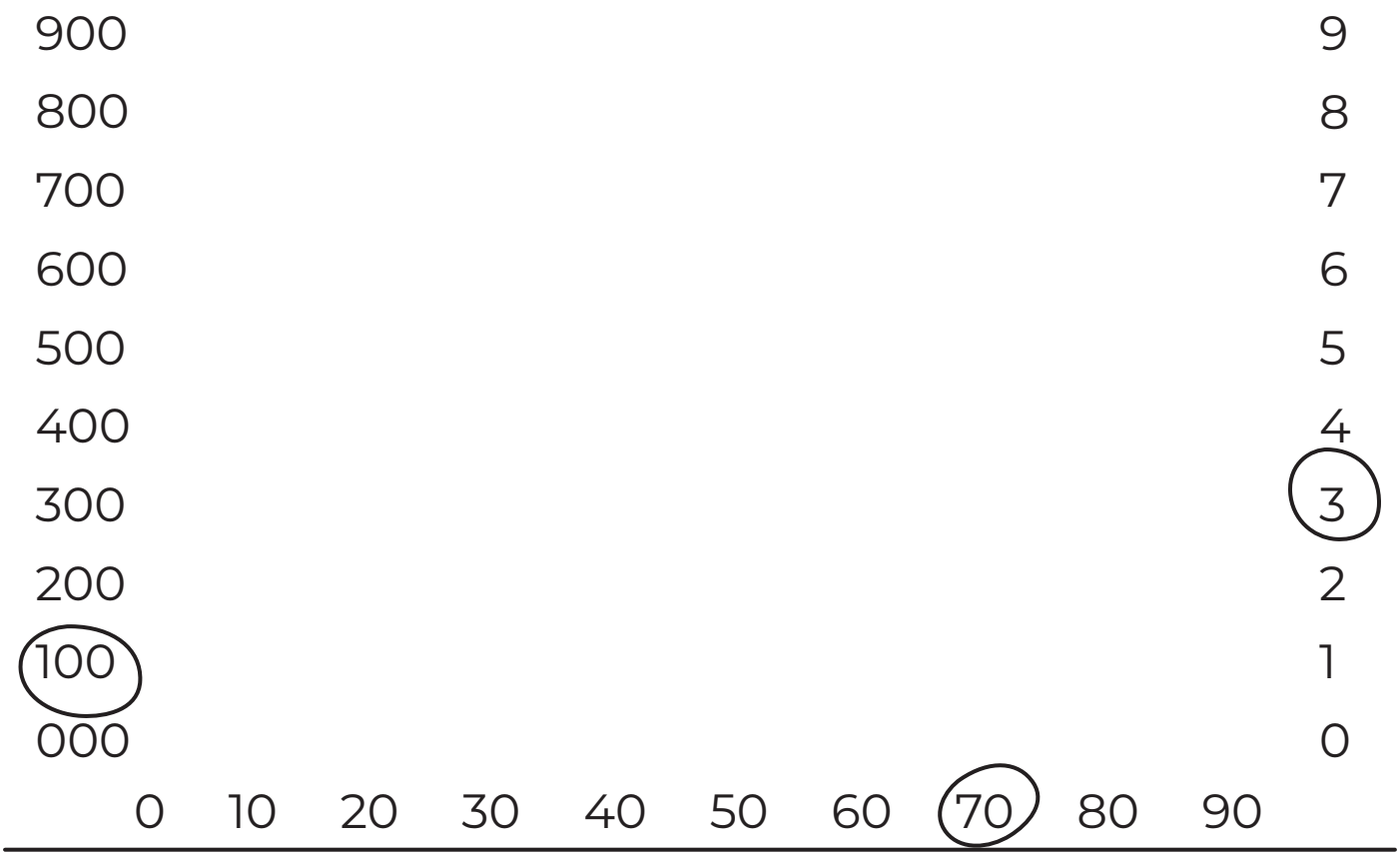
Scott's dog had nine puppies. He had no other puppies. How many puppies does Scott have altogether?

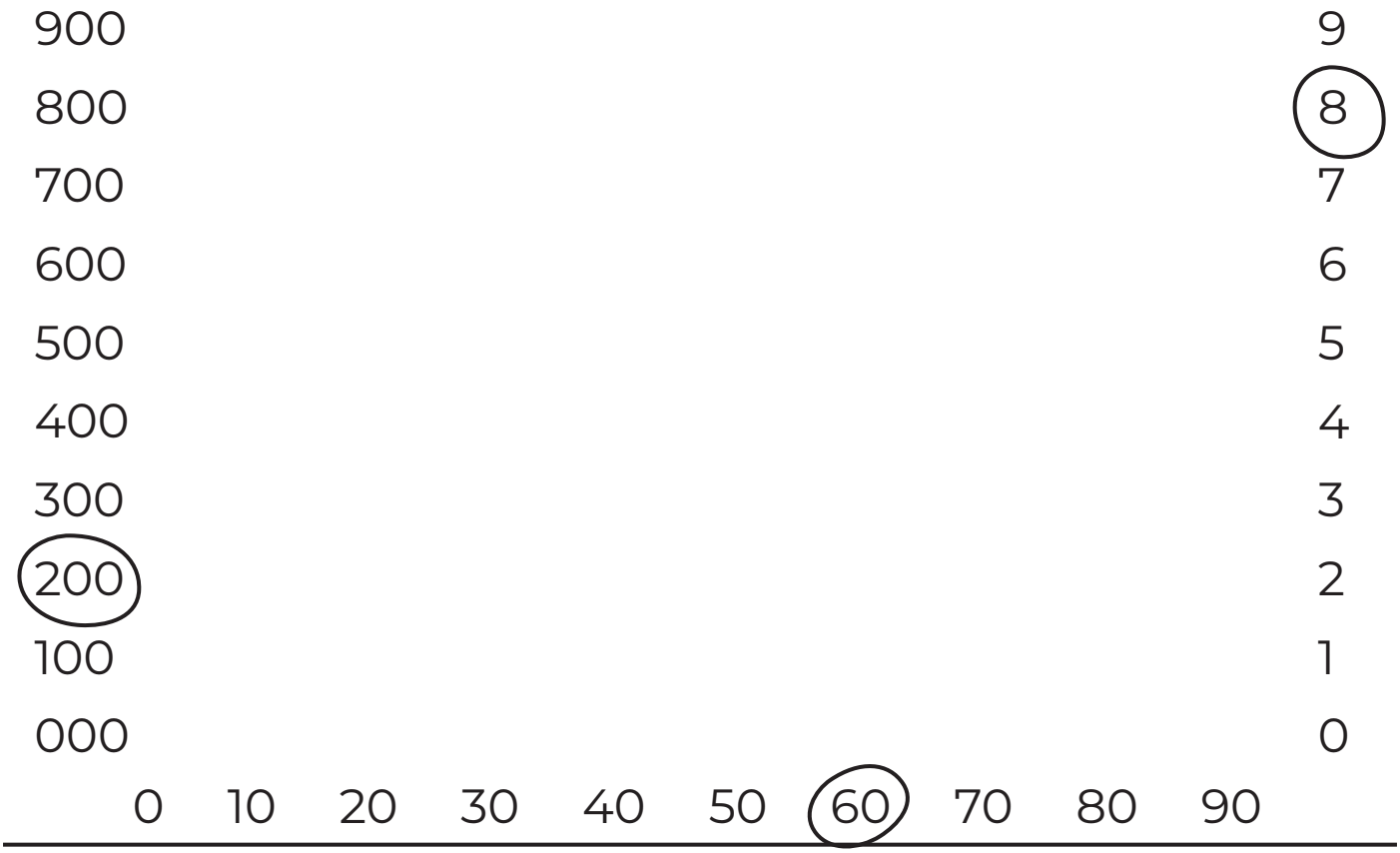
$\_\_ + \_\_ = \_\_$

Sequencing - Cumulative Review

Draw the hundreds, tens and units circled. Colour them in and then write the number in the space below.



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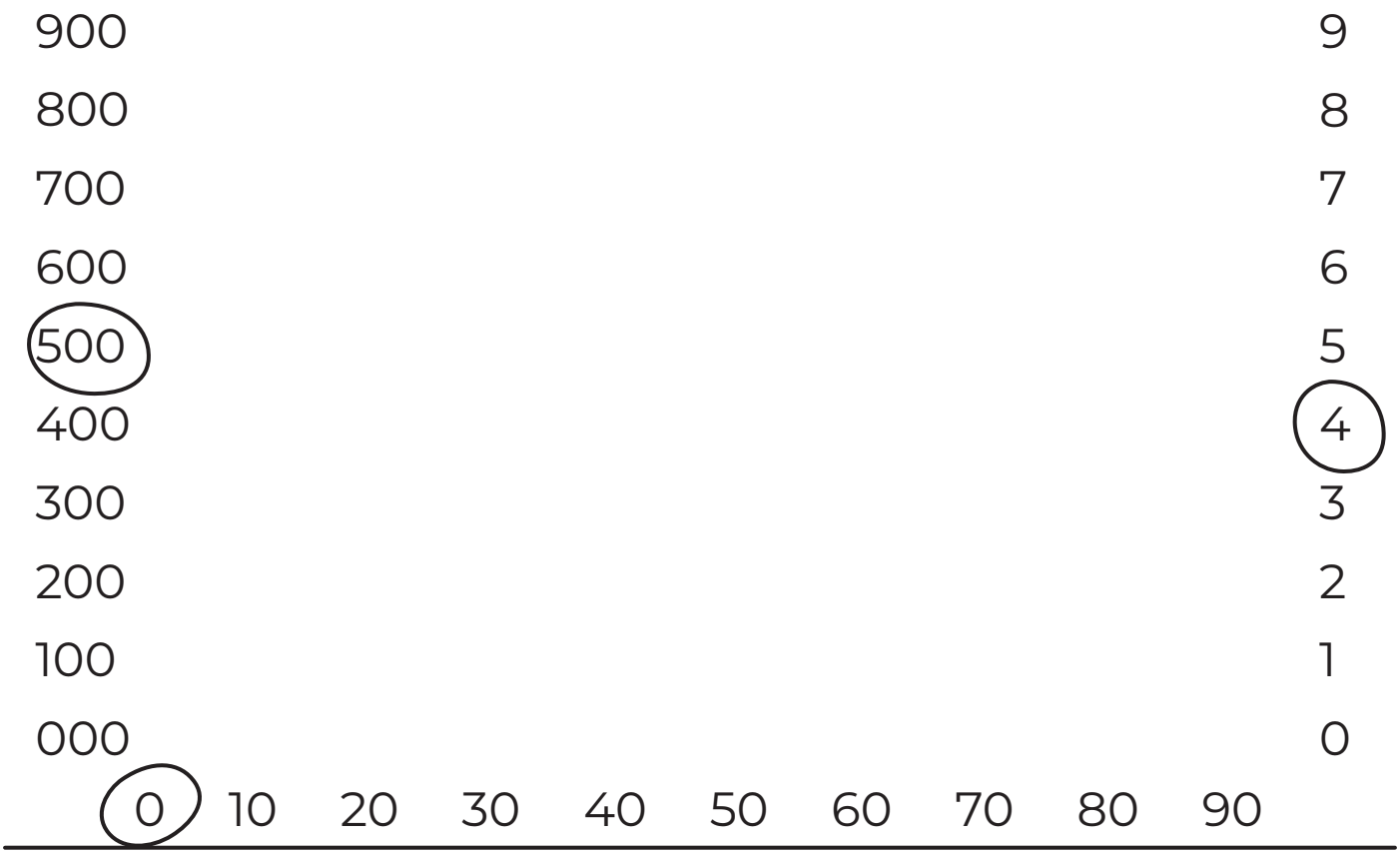
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BRIGHTER MATHS

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ORANGE LEVEL TWO

FOCUS: Multiple Digit Addition And Subtraction

Pre-requisite: The student can add and subtract single digit numbers and understand place-value.

- **Place Value**
- **Sequencing And Inequalities**
- **Addition And Subtraction To Five Digits**
- **Rounding And Estimation To Thousands**
- **Gauges, Thermometers**
- **Measurement**
- **Money - Addition, Subtraction**
- **Skip Counting By Two, Five And Ten**
- **Bar Graphs, Line Graphs**
- **Real Life Application, And More....**

The ***Maths Australia*** strategy involves three components:

Video and written instruction for the teacher and student, hands-on manipulatives to make abstract maths concepts understandable, and student workbooks to provide practice and review.

Watch the video until you understand the new topic, read the instruction material to reinforce your own learning, then use the manipulatives to teach understanding. Relate the lesson content to real life questions, have the student draw accurate representations, and only then move to the abstract squiggles on the piece of paper.

The Student Workbook will enable you to ensure mastery before you progress your student to the next lesson, confident of what they have learnt.

We look forward to your student's outstanding success as you teach them the way they learn!

MATHS AUSTRALIA

ORANGE LEVEL TWO Student Workbook

Printed in Australia