Mapping the Mathematics Online Interview to the Victorian Curriculum F-10: Mathematics Version 2.0

Overview

This table links the tasks from the Mathematics Online Interview to the Victorian Curriculum F-10: Mathematics Version 2.0.

The following table links tasks from the Mathematics Online Interview (MOI) to the level, strand, code, content description, and elaboration of the *Victorian Curriculum F-10: Mathematics Version 2.0* where applicable.

The table is divided into the 9 sections of the MOI and also includes the Foundation Detour:

* [Section A: Counting](#_SECTION_A:_COUNTING)
* [Section B: Place Value](#_SECTION_B:_PLACE)
* [Section C: Addition and Subtraction](#_SECTION_C:_ADDITION_1)
* [Section D: Multiplication and Division](#_SECTION_D:_MULTIPLICATION)
* [Section E: Time](#_SECTION_E:_TIME)
* [Section F: Length Measurement](#_SECTION_F:_LENGTH)
* [Section G: Mass Measurement](#_SECTION_G:_MASS)
* [Section H: Properties of Shape](#_SECTION_H:_PROPERTIES_1)
* [Section I: Visualisation](#_SECTION_I:_VISUALISATION_1)
* [Foundation Detour](#_FOUNDATION_DETOUR_(for)

Interpreting the table:

* ‘GP’ refers to Growth Points, developed as part of the Early Numeracy Research Project. To understand how the ‘Growth Points’ are assigned, refer to: [*Growth Points*](https://www.education.vic.gov.au/Documents/school/teachers/teachingresources/discipline/maths/continuum/MOI-growth-points.docx)*.*
* The questions required to achieve each GP are listed under the GP e.g. (2a-d & 3a-d). Note that a GP can only be appointed if the preceding GPs were also achieved, e.g. GP3 for a section can only be achieved if GP2 and GP1 for the item/s were previously achieved.
* Tasks in the ‘Foundation Detour’ aligned to the Victorian Curriculum F-10: Mathematics Version 2.0 do not link to GPs.
* Blank cells indicate no clear match to the Victorian Curriculum F-10: Mathematics Version 2.0.
* The ‘Content Description’ and ‘Elaborations’ columns are quoted, in full, from the Victorian Curriculum F-10: Mathematics Version 2.0.
* Bolded words indicate the parts of the content description and elaborations which are most relevant to the task.
* The ‘Foundation Detour’ section includes references to the newly published Foundation levels A to D of the Victorian Curriculum F-10: Mathematics Version 2.0.

Further details on the Victorian Curriculum F-10: Mathematics Version 2.0 can be accessed from the VCAA website at: <https://f10.vcaa.vic.edu.au/learning-areas/mathematics/curriculum>

## SECTION A: COUNTING

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICULUM F-10: MATHEMATICS VERSION 2.0** | | | | | |
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| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 Code** | **Content Description** | **Elaborations** | **Extent of content match** |
| **1** | **Teddy Task** | | | | | | | |
| **1a-b** | Estimate a quantity |  |  |  |  |  |  |  |
| **1c** | Counting to at least 20 | **GP 1**  *(1c, 2a, & 2e)* | Level F | Number | VC2MFN03 | 1. **Quantify and compare** **collections** **to at least 20 using counting** and explain or demonstrate reasoning | **Establishing the language and process of counting, and understanding that each object must be counted only once,** that the arrangement of objects does not affect how many there are and that the last number counted answers the question of ‘How many?’; for example, saying numbers in sequence while playing and performing actions  **Using counting and one-to-one correspondence to quantify the number of items** required for a purpose; for example, when asked to collect enough scissors for each member of their group to have a pair, counting each member and using the total count to know how many to collect | Good match - but note that it is possible to rote learn how to count to 20 without full understanding of counting |
| **1d** | Name 1 less | **GP 2**  *(1d)* | Level F | Number | VC2MFN01 | 1. **Name**, **represent and order numbers, including zero to at least 20**, using physical and virtual materials and numerals | 1. **Recognising the order in the sequence of numbers to 20 and identifying the number that is ‘one less’ than a given number and the number that is ‘one more;** for example, playing instructive card games that involve reading and ordering number cards, or using counting songs, storybooks and rhymes to establish the forwards and backwards counting sequence of numbers in the context of active counting activities | Good match - this describes a “rational counter” who understands counting in the correct sequencing of numbers |
| **2** | **Counting Forwards, Backwards and Breaking the Sequence** | | | | | | | |
| **2a** | Counting Forwards to 20 | **GP 1**  *(1c, 2a, & 2e)* | Level F | Number | VC2MFN01 | **Name, represent and order numbers, including zero to at least 20,** using physical and virtual materials and numerals | **Recognising the order in the sequence of numbers to 20** and identifying the number that is ‘one less’ than a given number and the number that is ‘one more’; for example, playing instructive card games that involve reading and ordering number cards, or using counting songs, storybooks and rhymes to establish the forwards and backwards counting sequence of numbers in the context of active counting activities | Good match - noting this is often just rote counting |
| **2b-d** | Counting Forwards, Breaking the Sequence to 120 / Counting backwards from 24 | **GP 3**  *(2a-d, 3a-b)* | Level 1 | Number | VC2M1N01 | **Recognise, represent and order numbers to at least 120** using physical and virtual materials, numerals, number lines and charts | **Reading**, writing and **naming numerals and ordering two-digit numbers from zero to at least 120, using patterns within the natural number system, including numbers that look and sound similar, for example, 16, 60, 61 and 66** | Good match |
| **2e** | Counting Backwards from 10 | **GP 1**  *(1c, 2a, & 2e)* | Level F | Number | VC2MFN01 | **Name, represent and order numbers, including zero to at least 20**, using physical and virtual materials and numerals | **Recognising the order in the sequence of numbers to 20** and identifying the number that is ‘one less’ than a given number and the number that is ‘one more’; for example, playing instructive card games that involve reading and ordering number cards, or using counting songs, storybooks and rhymes to establish the forwards and backwards counting sequence of numbers in the context of active counting activities | Good match - noting this is often rote counting |
| **3** | **More or Less Tasks** | | | | | | | |
| **3a-b** | One more and one less than given 2-digit number | **GP 3**  *(2a-d, 3a-b, 4a-c)* | Level 1 | Number | VC2M1N01 | **Recognise, represent and order numbers to at least 120** using physical and virtual materials, numerals, number lines and charts | Reading, writing and **naming numerals and ordering two-digit numbers from zero to at least 120,** using patterns within the natural number system, including numbers that look and sound similar, for example, 16, 60, 61 and 66 | Good match |
| 4 | **Counting from 0 by 10's, 5s and 2s** | | | | | | | |
| **4a-c** | Counting by 10s, 5s and 2s from 0 | **GP 3**  *(2a-d, 3a-b, 4a-c)* | Level 1 | Algebra | VC2M1A01 | **Recognise, continue** and create **pattern sequences,** **with numbers**, symbols, shapes and objects including Australian coins, **formed by skip counting, initially by twos, fives and tens** | **Recognising the patterns in sequences formed by skip counting; for example, recognising that skip counting in fives starting from zero always results in either a 5 or zero as the final digit** | Partial match - being able to skip count does not indicate an understanding of the count and the pattern sequence can be rote learnt. This is not acknowledged in the elaboration |
| **4d-e** | Stating 5 more, 10 less without re-counting | **GP 4**  *(4d-e)* | Level 1 | Algebra | [VC2M1A02](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2M1A02) | **Recognise, continue and create repeating patterns with numbers**, symbols, shapes and objects, **Identifying the repeating unit and recognising the importance of repetition** in solving problems | **Interpreting a repeating pattern sequence** created by someone else, **noticing and describing the repeating part of the pattern and explaining how they know what comes next in the sequence**  **Recognising within the sequencing of natural numbers that 0–9 digits are repeated both in and between the decades and using this pattern to continue the sequence and name two-digit numbers beyond 20** | Good match |
| **5** | **Counting from x by 10s and 5's** | | | | | | | |
| **5a-b** | Counting by 10s and 5s from non-zero number | **GP 5**  *(5a-b)* | Level 2 | Algebra | [VC2M2A01](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2M2A01) | **Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers**, shapes and objects, **and identify missing elements in the pattern** | **Recognising the constant term being added or subtracted in an additive pattern and using it to identify missing elements in the sequence** | Good match |
| **6** | **Counting from x by a Single Digit Number** | | | | | | | |
| **6a-b** | Counting by 3s and 7s from non-zero number | **GP 6**  *(6a-b, 7a-c)* | Level 2 | Algebra | VC2M2A01 | **Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers,** shapes and objects, **and identify missing elements in the pattern** | **Recognising the constant term being added** or subtracted **in an additive pattern** and using it to identify missing elements in the sequence | Good match |
| **7** | **Counting Money** | | | | | | | |
| **7a-c** | Counting money and calculating change from $5 | **GP 6**  *(6a-b, 7a-c)* | Level 3 | Number | VC2M3N07 | **Recognise the relationships between dollars and cents and represent money values in different ways** | **Representing money amounts in different ways using knowledge of part-part-whole relationships; for example, knowing that $1 is equal to 100 cents, representing $1.85 as $1 + 50c + 20c + 10c + 5c or 50c + 50c + 50c + 10c + 10c + 10c + 5c; or when calculating change from buying an item for $1.30 from $2, starting from $1.30 and adding 20c and 50c, which gives $2** | Good match |

### SECTION B: PLACE VALUE

| **MATHEMATICS ONLINE INTERVIEW** | | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS VERSION 2.0** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item No.** | **Task Description** | | **GP** | **Level** | **Strand** | **VC 2.0 code** | **Content Description** | **Elaboration** | **Extent of content match** |
| **8** | **Reading Numerals (1-digit)** | | | | | | | | |
| **8a** | | Reading numerals - all 1-digit numbers | **GP1**  *(8a-d,  9-B,  10a-B, 10b-A, 10b-B, &11-B)* | Level F | Number | VC2MFN01 | **Name**, represent and order **numbers, including zero** to at least 20, using physical and virtual materials and numerals | Recognising, writing and **reading numerals** written on familiar objects; for example, recognising and reading numerals in images, text or illustrations in storybooks, or writing a numeral on a container as a label to show how many objects it contains | Partial match – reading 1-digit numbers only |
| **8b** | Interpret the numeral 7 as a specific quantity | | **GP 1**  *(8a-d,  9-B,  10a-B, 10b-A, 10b-B, &11-B)* | Level F | Number | [VC2MFN0](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2MFN03)1 | Name, **represent** and order **numbers, including zero to** atleast 20, using physical and virtual materials and numerals | **Connecting quantities to** number namesand **numerals** when reading and reciting stories and playing counting games or determining and reasoning about the size of sets of objects within Aboriginal and/or Torres Strait Islander Peoples’ instructive games, for example, Segur  Etug from Mer Island in the Torres Strait region | Partial match – representing 1-digit numbers only |
| **8c** | Interpret 1 less than 7 (by stating one less or having to re-count) | | **GP 1**  *(8a-d,  9-B,  10a-B, 10b-A, 10b-B, &11-B)* | Level F | Number | [VC2MFN03](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2MFN03) | **Quantify and compare collections** to at least 20 **using counting and explain or demonstrate reasoning** | **Establishing the language and process of counting, and understanding that each object must be counted only once, that the arrangement of objects does not affect how many there are and that the last number counted answers the question of ‘How many?’;** for example, saying numbers in sequence while playing and performing actions | Partial match – quantifying and comparing 1-digit collection only |
| **8d** | Subitising 1-digit quantities | | **GP 1**  *(8a-d,  9-B,  10a-B, 10b-A, 10b-B, &11-B)* | Level F | Number | VC2MFN02 | **Recognise and name the number of objects within a collection up to 5 using subitising** | **Recognising how many objects are in a collection or in images on a card with a quick look and saying the associated number without counting** | Good match – but also includes conceptual subitising up to 10 |
| **9** | | **Reading Numerals (1-digit to 4-digits)** | | | | | | | |
| **9-B** | | Reading numerals - 1 digit | **GP 1**  *(8a-d,  9-B,  10a-B, 10b-A, 10b-B, &11-B)* | Level F | Number | VC2MFN01 | **Name,** represent and order **numbers, including zero to** at least 20, using physical and virtual materials and numerals | Recognising, writing and **reading numerals** written on familiar objects; for example, recognising and reading numerals in images, text or illustrations in storybooks, or writing a numeral on a container as a label to show how many objects it contains | Partial match – recognising and naming all 1-digit numbers only |
| **9-C** | | Reading numerals - 2 digit | **GP 2**  *(9-C, 10a-C, 10b-1, 10b-2, 11-C, 12a-b & 13)* | Level 1 | Number | VC2M1N01 | **Recognise**, represent and order **numbers to at least 120** using physical and virtual materials, numerals, number lines and charts | Reading, writing and **naming** numerals and ordering **two-digit numbers** from zero to at least 120, using patterns within the natural number system, including numbers that look and sound similar, for example, 16, 60, 61 and 66 | Partial match – recognising/ naming all 1- and 2-digit numbers only |
| **9-D** | Reading numerals - 3 digit | | **GP 3**  *(9-D, 10a-D, 11-D, 14, 15 & 16)* | Level 2 | Number | VC2M2N01 | **Recognise**, represent and order **numbers to at least 1000** using physical and virtual materials, numerals and number lines | **Reading** and writing numerals, and saying and ordering two-, **three-** and four-**digit numbers** using patterns in the number system, including numbers with zeros in different places and numbers that look and sound similar (such as 808, 880, 818 and 881) | Partial match – recognising and naming all 1- 2- and 3-digit numbers |
| **9-E** | Reading numerals - 4 digit | | **GP 4**  *(9-E, 10a-E, 10b-4, 11-E, 17, & 18)* | Level 3 | Number | VC2M3N02 | **Recognise**, represent and order natural **numbers using naming** and writing **conventions** for numerals beyond 10 000 | **Using the repeating pattern of place value names and spaces within sets of 3 digits to name** and write **larger numbers: ones, tens, hundreds, ones of thousands,** tens of thousands, hundreds of thousands, ones of millions, tens of millions; for example, writing four hundred and twenty-five thousand as 425 000 | Partial match – recognising/ naming up to 4-digit numbers only |
| **10a** | **Writing Numerals – Calculator Task** | | | | | | | | |
| **10a-B** | Writing numerals - calculator – 1- digit | | **GP 1**  *(9-B, 9a-d, 10a-B, 10b-A, 10b-B, &11-B)* | Level F | Number | VC2MFN01 | Name, **represent** and order **numbers, including zero to** at least 20, using physical and virtual materials and numerals | Recognising, **writing** and reading **numerals** written on familiar objects; for example, recognising and reading numerals in images, text or illustrations in storybooks, or writing a numeral on a container as a label to show how many objects it contains | Partial match – representing/writing 1-digit numbers only |
| **10a-C** | Writing numerals - calculator - 2 digits | | **GP 2**  *(9-C, 10a-C, 10b-1, 10b-2, 11-C, 12a-b & 13)* | Level 1 | Number | VC2M1N01 | Recognise, **represent** and order **numbers to at least 120** using physical and virtual materials, numerals, number lines and charts | Reading, **writing** and naming numerals and ordering **two-digit numbers** from zero to at least 120, using patterns within the natural number system, including numbers that look and sound similar, for example, 16, 60, 61 and 66 | Partial match – representing/writing only, 2-digit numbers only |
| **10a-D** | Writing numerals - calculator - 3 digits | | **GP 3**  *(9-D, 10a-D, 10b-3, 11-D, 14, 15 & 16)* | Level 2 | Number | [VC2M2N01](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2M2N01) | Recognise**, represent** and order **numbers to at least 1000** using physical and virtual materials, numerals and number lines | Reading and **writing** numerals, and saying and ordering two-, **three-** and four-**digit numbers** using patterns in the number system, including numbers with zeros in different places and numbers that look and sound similar (such as 808, 880, 818 and 881) | Partial match – representing/ writing only, 3-digit numbers only |
| **10a-E** | Writing numerals - calculator - 4 digits | | **GP 4**  *(9-E, 10a-E, 10b-4, 11-E, 17, & 18)* | Level 3 | Number | VC2M3N02 | Recognise, **represent** and order **natural numbers using** naming and **writing conventions for numerals** beyond 10 000 | Using the repeating pattern of place value names and spaces within sets of 3 digits to **name and write larger numbers: ones, tens, hundreds, ones of thousands**, tens of thousands, hundreds of thousands, ones of millions, tens of millions; for example, writing four hundred and twenty-five thousand as 425 000 | Partial match – representing/ writing 4-digit numbers only |
| **10b** | **Reading Numerals – Calculator Task** | | | | | | | | |
| **10b-1** | Reading numerals - calculator - 1 digit | | **GP 1**  *(8a-d,  9-B, 10a-B, 10b-A, 10b-B, &11-B)* | Level F | Number | VC2MFN01 | **Name**, represent and order **numbers, including zero to** at least 20, using physical and virtual materials and numerals | Recognising, writing and **reading numerals** written on familiar objects; for example, recognising and reading numerals in images, text or illustrations in storybooks, or writing a numeral on a container as a label to show how many objects it contains | Partial match – naming/reading 1-digit numbers only |
| **10b- 2** | Reading numerals - calculator - 2 digits | | **GP 2**  *(9-C, 10a-C, 10b-1, 10b-2, 11-C, 12a-b & 13)* | Level 1 | Number | VC2M1N01 | **Recognise**, represent and order **numbers to at least 120** using physical and virtual materials, numerals, number lines and charts | **Reading**, writing and **naming** numerals and ordering **two-digit numbers** from zero to at least 120, using patterns within the natural number system, including numbers that look and sound similar, for example, 16, 60, 61 and 66 | Partial match – recognising/reading 2-digit numbers only |
| **10b- 3** | Reading numerals - calculator - 3 digits | | **GP 3**  *(9-D, 10a-D, 10b-3, 11-D, 14, 15 & 16)* | Level 2 | Number | VC2M2N01 | **Recognise**, represent and order **numbers to at least 1000** using physical and virtual materials, numerals and number lines | **Reading** and writing numerals, and saying and ordering two-, **three**- and four-**digit numbers** using patterns in the number system, including numbers with zeros in different places and numbers that look and sound similar (such as 808, 880, 818 and 881) | Partial match – recognising/ reading only, 3-digit numbers only |
| **10b- 4** | Reading numerals - calculator - 4 digits | | **GP 4**  *(9-E, 10a-E, 10b-4, 11-E, 17, & 18)* | Level 3 | Number | VC2M3N02 | **Recognise**, represent and order **natural numbers using naming** and writing **conventions** for numerals beyond 10 000 | Using the repeating pattern of place value names and spaces within sets of 3 digits to **name** and write **larger numbers: ones, tens, hundreds, ones of thousands, tens of thousands**, hundreds of thousands, ones of millions, tens of millions; for example, writing four hundred and twenty-five thousand as 425 000 | Partial match – reading 4-digit numbers only |
| **10b- 5** | Reading numerals – calculator – 5+ digits | | **GP 4**  *(9-E, 10a-E, 10b-4, 11-E, 17, & 18)* | Level 3 | Number | VC2M3N02 | **Recognise**, represent and order **natural numbers using naming** and writing **conventions for numerals beyond 10 000** | Using the repeating pattern of place value names and spaces within sets of 3 digits to **name** and write **larger numbers: ones, tens, hundreds, ones of thousands, tens of thousands, hundreds of thousands, ones of millions, tens of millions**; for example, writing four hundred and twenty-five thousand as 425 000 | Partial match – recognising/reading numbers only |
| **10b- 5** | Reading numerals – calculator – 5+ digits | | **GP 4**  *(9-E, 10a-E, 10b-4, 11-E, 17, & 18)* | Level 3 | Number | VC2M3N02 | **Recognise**, represent and order **natural numbers using naming** and writing **conventions for numerals beyond 10 000** | Using the repeating pattern of place value names and spaces within sets of 3 digits to **name** and write **larger numbers: ones, tens, hundreds, ones of thousands, tens of thousands, hundreds of thousands, ones of millions, tens of millions**; for example, writing four hundred and twenty-five thousand as 425 000 | Partial match – recognising/ reading numbers only |
| **11** | **Ordering Tasks** | | | | | | | | |
| **11-B** | Ordering - 1-digit set | | **GP 1**  *(8a-d,  9-B,  10a-B, 10b-A, 10b-B, &11-B)* | Level F | Number | VC2MFN01 | Name, represent and **order** **numbers, including zero to** at least 20, using physical and virtual materials and numerals | **Recognising the order in the sequence of numbers** to 20 and identifying the number that is ‘one less’ than a given number and the number that is ‘one more’; for example, playing instructive card games that involve reading and ordering number cards, or using counting songs, storybooks and rhymes to establish the forwards and backwards counting sequence of numbers in the context of active counting activities | Partial match – ordering 1-digit numbers only |
| **11-C** | Ordering - 2-digit set | | **GP 2**  *(9-C, 10a-C, 10b-1, 10b-2, 11-C, 12a-b & 13)* | Level 1 | Number | VC2M1N01 | Recognise, represent and **order numbers to at least 120** using physical and virtual materials, numerals, number lines and charts | Reading, writing and naming numerals and **ordering two-digit numbers** from zero to at least 120, using patterns within the natural number system, including numbers that look and sound similar, for example, 16, 60, 61 and 66 | Partial match – ordering numbers only |
| **11-D** | Ordering - 3-digit set | | **GP 3**  *(9-D, 10a-D, 10b-3, 11-D, 14, 15 & 16)* | Level 2 | Number | [VC2M2N01](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2M2N01) | Recognise, represent and **order numbers to at least 1000** using physical and virtual materials, numerals and number lines | Reading and writing numerals, and saying and **ordering** two-, **three-** and four-**digit numbers** using patterns in the number system, including numbers with zeros in different places and numbers that look and sound similar (such as 808, 880, 818 and 881) | Partial match – ordering numbers only |
| **11-E** | Ordering - 4-digit set | | **GP 4**  *(9-E, 10a-E, 10b-4, 11-E, 17, & 18)* | Level 3 | Number | VC2M3N02 | Recognise, represent and **order natural numbers using naming** and writing **conventions** for numerals beyond 10 000 | Moving materials from one place to another on a place value model to show renaming of numbers (for example, 1574 can be shown as one thousand, 5 hundreds, 7 tens and 4 ones, or as 15 hundreds, 7 tens and 4 ones) | Partial match – ordering numbers up to 4-digits only |
| **12** | **Bundling Task – Interpreting 2-Digit Numbers** | | | | | | | | |
| **12a & 12b** | Bundling task-Interpreting 2-digit numbers with pop stick bundles | | **GP 2**  *(9-C, 10a-C, 10b-1, 10b-2, 11-C, 12a-b & 13)* | Level 1 | Number | VC2M1N01 | **Recognise**, **represent** and order **numbers to at least 120 using physical** and virtual **materials**, numerals, number lines and charts | Reading, writing and naming numerals and ordering two-digit numbers from zero to at least 120, using patterns within the natural number system, including numbers that look and sound similar, for example, 16, 60, 61 and 66 | Partial match - recognising and representing/ interpreting 2-digit numbers only  Elaboration does not include interpreting the numbers, just reading writing and naming. |
| **12a & 12b** | Bundling task-Interpreting 2-digit numbers with pop stick bundles | | **GP 2**  *(9-C, 10a-C, 10b-1, 10b-2, 11-C, 12a-b & 13)* | Level 1 | Number | VC2M1N02 | **Partition one- and two-digit numbers in different ways using physical** and virtual **materials, including partitioning two-digit numbers into tens and ones** | **Using physical** and virtual **materials to partition numbers into counts of tens and ones**; for example, recognising 35 as 3 tens and 5 ones or as 2 tens and 15 ones | Good match |
| **13** | **Number Line Tasks – Interpreting 2-Digit Numbers** | | | | | | | | |
| **13** | 2-digit number line-Interpreting 2-digit numbers on a number line | | **GP 2**  *(9-C, 10a-C, 10b-1, 10b-2, 11-C, 12a-b & 13)* | Level 1 | Number | VC2M1N01 | **Recognise, represent** and order **numbers to at least 120 using** physical and virtual materials, numerals, **number lines** and charts | Using number tracks or positioning a set of numbered cards **in the correct order and relative location by pegging them on an empty number line** | Partial match – recognising and representing/ interpreting numbers only |
| **14** | **Number Line Tasks – Interpreting 3-Digit Numbers** | | | | | | | | |
| **14a-b** | 3-digit number line- Interpreting 3-digit numbers on a number line | | **GP 3**  *(9-D, 10a-D, 10b-3, 11-D, 14a-b, 15 & 16)* | Level 2 | Number | VC2M2N01 | **Recognise, represent** and order **numbers to at least 1000 using** physical and virtual materials, numerals and **number lines** | **Recognising missing numbers on different number lines,** for example, a number line with 1800 on one end and 2200 on the other, with every decade numbered | Partial match – recognising and representing/ interpreting numbers only |
| **15** | **‘More than’ Task – Interpreting 3-digit numbers** | | | | | | | | |
| **15** | 10 more- Interpreting 3-digit numbers by stating 10 more than 592 | | **GP 3**  *(9-D, 10a-D, 10b-3, 11-D, 14, 15 & 16)* | Level 2 | Number | VC2M2N02 | **Partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation** | **Renaming numbers in different ways using knowledge of place value; for example, renaming 245 as 24 tens and 5 ones or 2 hundreds and 45 ones** | Good match – renaming numbers for the purpose of efficiently solving an addition problem that bridges a hundred mentally |
| **16** | **‘Less than’ Task – Interpreting 3-digit numbers** | | | | | | | | |
| **16** | 10 less- Interpreting  3-digit  numbers by stating 10 less than 408 | | **GP 3**  *(9-D, 10a-D, 10b-3, 11-D, 14, 15 & 16)* | Level 2 | Number | VC2M2N02 | **Partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation** | **Renaming numbers in different ways using knowledge of place value; for example, renaming 245 as 24 tens and 5 ones or 2 hundreds and 45 ones** | Good match – renaming numbers for the purpose of efficiently solving a subtraction problem that bridges a hundred mentally |
| **17** | **‘More than’ Task – Interpreting 4-digit numbers** | | | | | | | | |
| **17** | 10 more- Interpreting  4-digit numbers by stating 10 more than 2791 | | **GP 4**  *(9-E, 10a-E, 10b-4, 11-E, 17, & 18)* | Level 3 | Number | VC2M3N02 | **Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000** | Moving materials from one place to another on a place value model to show renaming of numbers (for example, **1574 can be shown as one thousand, 5 hundreds, 7 tens and 4 ones, or as 15 hundreds, 7 tens and 4 ones)** | Good match – renaming numbers for the purpose of efficiently solving an addition problem that bridges a hundred mentally |
| **18** | **‘Less than’ Task – Interpreting 4-digit numbers** | | | | | | | | |
| **18** | 100 less- Interpreting 4-digit numbers by stating 100 less 3027 | | **GP 4**  *(9-E, 10a-E, 10b-4, 11-E, 17, & 18)* | Level 3 | Number | VC2M3N02 | **Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000** | Moving materials from one place to another on a place value model to show renaming of numbers (for example, **1574 can be shown as one thousand, 5 hundreds, 7 tens and 4 ones, or as 15 hundreds, 7 tens and 4 ones)** | Good match – renaming numbers for the purpose of efficiently solving a subtraction problem that bridges a hundred mentally |
| **19** | **Sorting Capital Cities – ordering larger numbers** | | | | | | | | |
| **19a-e** | Read and order Capital city populations (5+-digit numbers) | | **GP5**  *(19a-e, 20a-d)* | Level 3 | Number | VC2M3N02 | **Recognise**, represent and **order natural numbers using naming** and writing **conventions for numerals beyond 10 000** | Using the repeating pattern of place value names and spaces within sets of 3 digits to name and write larger numbers: ones, tens, hundreds, ones of thousands, **tens of thousands, hundreds of thousands, ones of millions, tens of millions;** for example, writing four hundred and twenty-five thousand as 425 000 | Partial match – this task is about recognising and ordering numbers only |
| **20** | **Interpreting the Number Line – larger numbers** | | | | | | | | |
| **20a-d** | Interpreting number lines-placing 5+digit numbers on varying number lines | | **GP5**  *(19a-e, 20a-d)* | Level 3 | Number | VC2M3N02 | **Recognise, represent** and order **natural numbers using naming** and writing conventions **for numerals beyond 10 000** | Moving materials from one place to another on a place value model to show renaming of numbers (for example, 1574 can be shown as one thousand, 5 hundreds, 7 tens and 4 ones, or as 15 hundreds, 7 tens and 4 ones) | Partial match – this task is about recognising and representing larger numbers on a **number line** |

### SECTION C: ADDITION AND SUBTRACTION

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS VERSION 2.0** | | | | | |
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| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 code** | **Content Description** | **Elaboration** | **Extent of content match** |
| **21** | **Addition – Combining 2 Quantities** | | | | | | | |
| **21a** | Counting on -  9 teddies + 4 teddies (with 9 screened – counts all) | **GP 1**  *(21a-b)* | Level F | Number | VC2MFN05 | **Represent practical situations,** including simple financial situations, **involving addition,** subtraction **and quantification with physical** and virtual **materials and use counting** or subitising strategies | **Using role-play and materials to represent mathematical relationships in stories; for example, role-playing ‘Eight kangaroos were drinking at the river and 3 hopped away’,** drawing a picture and using materials to represent the situation, discussing, and recording the result of the action with a numeral | Good match |
| **21a** | Counting on -  9 teddies + 4 teddies (with 9 screened – counts on) | **GP 2**  *(21a-b, & 22a)* | Level 1 | Number | VC2M1N04 | **Add** and subtract **numbers within 20, using physical** and virtual materials, **part-part-whole knowledge to 10** **and a variety of calculation strategies** | Adding and subtracting numbers within 20, using a variety of representations and strategies, such as **counting on**, counting back, partitioning and **part-part-whole knowledge of numbers** **of numbers** to 10; for example, using partitioning and combining7 + 5 = 7 + 3 + 2 = 10 + 2 = 12 | Good match |
| **21b** | Counting on -  9 teddies + 4 teddies (with unscreened collections) | **GP 1**  *(21a-b)* | Level F | Number | VC2MFN05 | **Represent practical situations,** including simple financial situations, **involving addition,** subtraction **and quantification with physical** and virtual **materials and** **use counting** or subitising **strategies** | **Using role-play and materials to represent mathematical relationships in stories**; for example, role-playing ‘Eight kangaroos were drinking at the river and 3 hopped away’, drawing a picture and using materials to represent the situation, discussing, and recording the result of the action with a numeral | Good match |
| **22** | **Subtraction – Take Away** | | | | | | | |
| **22a** | Counting back - 8-3 (imagine 8 little biscuits, eat 3) | **GP2**  *(21a-b, & 22a)* | Level 1 | Number | VC2M1N04 | Add and **subtract numbers within 20**, using physical and virtual materials, part-part-whole knowledge to 10 **and a variety of calculation strategies** | Adding and subtracting numbers within 20, using a variety of representations and strategies, such as counting on, **counting back**, partitioning and **part-part-whole knowledge of numbers** to 10; for example, using partitioning and combining7 + 5 = 7 + 3 + 2 = 10 + 2 = 12 | Good match |
| **22b** | Counting back - 8-3 (uses fingers to solve the problem) | **GP1**  *(21a-b, & 22b)* | Level F | Number | VC2MFN05 | **Represent practical situations**, including simple financial situations, **involving** addition, **subtraction and quantification with physical** and virtual **materials and use** **counting** or subitising **strategies** | **Using role-play and materials to represent mathematical relationships in stories; for example, role-playing ‘Eight** kangaroos **were drinking at the river and 3 hopped away’,** drawing a picture and using materials to represent the situation, discussing, and recording the result of the action with a numeral | Good match |
| **23** | **Subtraction – Difference** | | | | | | | |
| **23** | Counting down and up -12-9  (imagine 12 strawberries, eat 9 – count back all or model all) | **GP 2**  *(21a-b, & 22a)* | Level 1 | Number | VC2M1N04 | Add and **subtract numbers within 20,** using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies | Using drawings, physical and virtual materials, and number combinations within 10 to **add and subtract collections to 20** | Partial match – student still modelling and/or counting all |
| **23** | Counting down and up - 12-9  (imagine 12 strawberries, eat 9 – find the difference - counting down to / counting up from) | **GP 3**  *(22b & 23)* | Level 1 | Number | VC2M1N04 | Add and **subtract numbers within 20**, using physical and virtual materials, part-part-whole knowledge to 10 **and a variety of calculation strategies** | Developing **and using strategies for one-digit addition and subtraction based on part-part-whole relationships for each of the numbers** to 10 and subitising with physical and virtual materials; for example, 8 and 6 is the same as 8 and 2 and 4 | Good match – student recognises subtraction as “difference” to solve the problem more efficiently |
| **24** | **Basic Strategies [NB all 5 answers (Q24 a-e) need to be correct with basic strategies (as opposed to counting strategies) used in at least 3 of solutions for GP4 to be assigned]** | | | | | | | |
| **24a-e** | 4+4 (Doubles)  2+19 (Commutativity)  4+6 (10s facts)  27+10 (add 10/build to next 10  10-7 (10s facts) | **GP4**  *(24a-e)* | Level 2 | Algebra | VC2M2A02 | **Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts** | Using ten-frames or materials such as connecting cubes to **develop and record addition and subtraction strategies including doubles, near doubles, counting on, combinations to 10 and bridging to 10, explaining patterns and connections noticed within the facts** | Good match |
| **25** | **Derived Strategies [NB all 5 answers (Q25 a-e) need to be correct with derived strategies (as opposed to counting strategies) used in at least 3 of the solutions for GP5 to be assigned]** | | | | | | | |
| **25a-e** | 12-6  (doubles/known fact)  7+8 (near doubles)  19-15 (fact families)  16+5 (build to next 10)  36+9  (add 10 take 1/ build to next 10) | **GP5**  *(25a-e)* | Level 2 | Algebra | VC2M2A02 | **Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts** | **Partitioning and rearranging collections to practise and develop fluency with addition and subtraction facts to 20, leading to the recall of these facts; for example, partitioning using materials and part-part-whole diagrams to develop subtraction facts related to addition facts, such as 8 + 7 = 15 therefore 15 − 7 = 8 and 15 − 8 = 7**  Using partitioning to develop and record facts systematically (for example, ‘How many ways can 10 birds be spread among 2 trees?’, 10 = 10 + 0, 10 = 9 + 1, 10 = 8 + 2, 10 = 7 + 3, …), explaining how they know they have found all possible partitions | Good match |
| **26** | **Multi-digit Strategies [\*NB all sections of Q26-29 need to be correct, using additive strategies, for GP 6 to be assigned]** | | | | | | | |
| **26a-d** | Mentally solving 2-digit addition and subtraction problems | **GP6**  *(26-d, 27a-b, 28, & 29)* | Level 2 | Number | VC2M2N04 | Add and subtract one- and **two-digit numbers**, represent problems using number sentences and **solve using part-part-whole reasoning and a variety of calculation strategies** | **Using strategies such as doubles, near doubles, part-part-whole knowledge to 10, bridging tens and partitioning to mentally solve problems involving two-digit numbers;** for example, calculating 56 + 37 by thinking 5 tens and 3 tens is 8 tens, 6 + 7 = 6 + 4 + 3 is one 10 and 3, and so the result is 9 tens and 3, or 93 | Good match |
| **27** | **How many Digits? [\*NB all sections of Q26-29 need to be correct using additive strategies for GP 6 to be assigned]** | | | | | | | |
| **27a-b** | Mental addition and subtraction of 3-digit numbers – estimating the answer | **GP6**  *(26a-d, 27a-b, 28, & 29)* | Level 3 | Number | [VC2M3N04](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2M3N04) | **Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator** | **Applying knowledge of place value to assist in calculations when solving problems involving larger numbers;** for example, calculating the total crowd numbers for an agricultural show that lasts a week | Good match |
| **27a-b** | Mental addition and subtraction of 3-digit numbers – estimating the answer | **GP6**  *(26a-d, 27a-b, 28, & 29)* | Level 3 | Algebra | [VC2M3A02](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2M3A02) | **Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator** | **Understanding basic addition and related subtraction facts and using extensions to these facts; for example, 6 + 6 = 12, 16 + 6 = 22, 6 + 7 = 13, 16 + 7 = 23, and 60 + 60 = 120, 600 + 600 = 1200** | Good match |
| **28** | **Estimating and Calculating Addition [\*NB all sections of Q26-29 need to be correct using additive strategies for GP 6 to be assigned]** | | | | | | | |
| **28** | Estimating and calculating 3-digit addition (mentally or with pen and paper) | **GP6**  *(26a-d, 27a-b, 28, & 29)* | Level 4 | Number | VC2M4N06 | **Develop efficient mental and written strategies** and use appropriate digital tools **for solving problems involving** **addition** andsubtraction, and multiplication and division where there is no remainder | **Using and choosing efficient calculation strategies for addition** and subtraction problems **involving larger numbers,** for example, place value partitioning, inverse relationship, compatible numbers, jump strategies, bridging tens, splitting one or more numbers, extensions to basic facts, algorithms and digital tools where appropriate | Partial match – addition only |
| **29** | **Estimating and Calculating Subtraction [\*NB all sections of Q26-29 need to be correct using additive strategies for GP 6 to be assigned]** | | | | | | | |
| **29** | Estimating and calculating 3-digit subtraction (mentally or with pen and paper) | **GP6**  *(26a-d, 27a-b, 28, & 29)* | Level 4 | Number | VC2M4N06 | **Develop efficient mental and written strategies** and use appropriate digital tools **for solving problems involving** addition and **subtraction**, and multiplication and division where there is no remainder | **Using and choosing efficient calculation strategies for** addition and **subtraction problems involving larger numbers,** for example, place value partitioning, inverse relationship, compatible numbers, jump strategies, bridging tens, splitting one or more numbers, extensions to basic facts, algorithms and digital tools where appropriate | Partial match – subtraction only |

### SECTION D: MULTIPLICATION AND DIVISION

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS 2.0** | | | | | |
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| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 code** | **Content Description** | **Elaboration** | **Extent of content match** |
| **30** | **Modelling Multiplication (NB. both Q30 and 31 need to be correct to assign GPs)** | | | | | | | |
| **30a-b** | Teddies in Cars – Count by ones | **GP1**  *(30a-b, 31a-b)* | Level F | Number | VC2MFN03 | **Quantify** and compare **collections to at least 20 using counting** and explain or demonstrate reasoning | **Using counting and one-to-one correspondence to quantify the number of items required for a purpose**; for example, when asked to collect enough scissors for each member of their group to have a pair, counting each member and using the total count to know how many to collect | Partial match – the task also assesses understanding of terms like **each** and **altogether** |
| **30a-b** | Teddies in Cars – recognise and use group structure | **GP2**  *(30a-b, 31a-b)* | Level 1 | Number | VC2M1N03 | **Quantify sets of objects,** to at least 120, **by partitioning collections into equal groups using number knowledge and skip counting** | **Counting a large collection of items using groups of fives or tens and skip counting to work out how many there are** and recording the amount and connecting the digits in the number to the grouped materials when using groups of 10 | Partial match – student recognises how to count more efficiently by recognising equal groups, but this task is not about larger collections |
| **30a-b** | Teddies in Cars – recognise and use group structure | **GP2**  *(30a-b, 31a-b)* | Level 1 | Algebra | VC2M1A01 | **Recognise, continue and create pattern sequences, with numbers,** symbols, shapes and objects including Australian coins, **formed by skip counting, initially by twos,** fives and tens | **Recognising the patterns in sequences formed by skip counting**; for example, recognising that skip counting in fives starting from zero always results in either a 5 or zero as the final digit | Partial match – skip counting by 2s only |
| **31** | **Modelling Division (NB. both Q30 and 31 need to be correct to assign GPs)** | | | | | | | |
| **31a-b** | Teddies on Mats – share one by one | **GP1**  *(30a-b, 31a-b)* | Level F | Number | VC2MFN06 | **Represent practical situations that involve** **equal sharing** and grouping **with physical** and virtual **materials** and **use counting** or subitising strategies | **Using materials to role-play equal sharing**; for example, sharing pieces of fruit or a bunch of grapes between 4 people and discussing how you would know they have been shared equally; or, when playing card games where each player is dealt the same number of cards, counting the number of cards after the deal to ensure they have the same amount | Partial match – student can share by 1s but does not recognise the grouping structure |
| **31a-b** | Teddies on Mats – recognises and uses groups to share | **GP2**  *(30a-b, 31a-b)* | Level 1 | Number | VC2M1N06 | **Use mathematical modelling to solve practical problems involving equal sharing and grouping**; **represent the situations with** diagrams, **physical** and virtual **materials**, **and use calculation strategies to solve the problem** | **Modelling practical problems involving equal sharing situations; for example, sharing a set of dominoes between the 2 players in a game, and then** counting **or subitising to ensure they both have the same number of tiles** | Good match |
| **31a-b** | Teddies on Mats – recognises and uses groups to share | **GP2**  *(30a-b, 31a-b)* | Level 1 | Algebra | VC2M1A01 | **Recognise, continue and create pattern sequences, with** **numbers**, symbols, shapes and objects including Australian coins, **formed by skip counting, initially by twos,** fives and tens | Recognising the patterns in sequences **formed by skip counting**; for example, recognising that skip counting in fives starting from zero always results in either a 5 or zero as the final digit | Partial match – may also include skip counting by 3s |
| **32-34** | **Partial Modelling (NB. Q32, 33 and 34 all need to be correct using multiplicative strategies to assign GP3)** | | | | | | | |
| **32a-b** | Unifix Train (times as many) – using group structure | **GP3**  *(32a-b, 33a-b, &  34a-b)* | Level 2 | Number | VC2M2N06 | **Use mathematical modelling to solve practical problems involving** additive and **multiplicative situations**, including money transactions; **represent situations and choose calculation strategies; interpret and communicate solutions in terms of the context** | Modelling practical problems by interpreting an everyday additive or **multiplicative** situation; for example, making a number of purchases at a store and deciding whether to use addition, subtraction, multiplication or division to solve the problem and justifying the choice of operation such as ‘I used subtraction to solve this problem as I knew the total and one of the parts, so I needed to subtract to find the missing part’ | Good match |
| **33a-b** | Tennis Balls (groups of) – using group structure | **GP3**  *(32a-b, 33a-b, &  34a-b)* | Level 2 | Number | VC2M2N06 | **Use mathematical modelling to solve practical problems involving** additive and **multiplicative situations**, including money transactions; **represent situations and choose calculation strategies; interpret and communicate solutions in terms of the context** | Modelling practical problems by interpreting an everyday additive or **multiplicative** situation; for example, making a number of purchases at a store and deciding whether to use addition, subtraction, multiplication or division to solve the problem and justifying the choice of operation such as ‘I used subtraction to solve this problem as I knew the total and one of the parts, so I needed to subtract to find the missing part’ | Good match |
| **34a-b** | Dots Array – using group structure | **GP3**  *(32a-b, 33a-b, &  34a-b)* | Level 2 | Number | VC2M2N05 | **Multiply** and divide **by one-digit numbers using** repeated addition, equal grouping, **arrays** **and partitioning to support a variety of calculation strategies** | **Finding the total number represented in an array by partitioning the array using subitising and number facts;** for example, describing how they determined the total number of dots arranged in a ‘3 fives’ array by saying, ‘I saw 2 fives, which is 10, and then 5 more, which makes 15’ | Good match |
| **35-37** | **Abstracting Multiplication and Division (NB. Q35, 36 and 37 all need to be correct using multiplicative strategies to assign GP4)** | | | | | | | |
| **35** | Biscuits on a Tray (Abstracting Division:  Quotition – using a multiplicative strategy | **GP4**  *(35, 36, & 37)* | Level 2 | Algebra | VC2M2A04 | **Apply repetition in arithmetic operations, including** multiplication as repeated addition and **division** as repeated subtraction | **Sharing a set of objects equally between a small number of groups** | Partial match – this scenario does not lend itself to a repeated subtraction strategy |
| **36** | Number of Legs (Abstracting Multiplication – using a multiplicative strategy) | **GP4**  *(35, 36, & 37)* | Level 2 | Algebra | VC2M2A04 | **Apply repetition in arithmetic operations, including multiplication** as repeated addition and division as repeated subtraction | Using technology to construct a sequence of numbers based on constant addition or subtraction from a given starting value  Sharing a set of objects equally between a small number of groups | Good match – although the focus is not on repeated addition, but multiplicative thinking |
| **37** | At the Movies - Abstracting Division: Partition – using a multiplicative strategy) | **GP4**  *(35, 36, & 37)* | Level 2 | Algebra | VC2M2A04 | **Apply repetition in arithmetic operations, including** multiplication as repeated addition and **division** as repeated subtraction | **Sharing a set of objects equally between a small number of groups** | Partial match – the elaboration for this content does not indicate that at this level students need to have moved beyond sharing ones |
| **38-40** | **Multiplication Strategies** | | | | | | | |
| **38a-c** | Interpreting Multiplication – draw a representation | **GP5**  *(38a-c, 39a-f, & 40a-b)* | Level 3 | Number | VC2M3N05 | **Multiply** and divide **one- and two-digit numbers, representing problems using** number sentences, **diagrams** and arrays, and using a variety of calculation strategies | **Applying knowledge of numbers and the properties of operations** using a variety of ways **to represent multiplication** or division number sentences; for example, using a Think Board to show different ways of visualising 8 × 4, such as an array, a diagram and a worded problem | Good match |
| **39a-f** | Multiplication facts (using basic, derived and intuitive strategies for multiplication) | **GP5**  *(38a-c, 39a-f, & 40a-b)* | Level 3 | Number | VC2M3N05 | **Multiply** and divide **one- and two-digit numbers,** representing problems using number sentences, diagrams and arrays, and **using a variety of calculation strategies** | Applying knowledge of numbers and the properties of operations using a variety of ways to represent multiplication or division number sentences; for example, using a Think Board to show different ways of visualising 8 × 4, such as an array, a diagram and a worded problem | Good match |
| **40a** | Cost of Stickers  (6 x 50c) – using non-counting multiplicative strategies | **GP5**  *(38a-c, 39a-f, & 40a-b)* | Level 3 | Number | VC2M3N08 | **Use mathematical modelling to solve practical problems involving** additive and **multiplicative** **situations**, **including financial contexts**; formulate problems using number sentences and **choose calculation strategies**, using digital tools where appropriate; **interpret and communicate solutions in terms of the situation** | **Modelling practical multiplicative situations** using materials or a diagram to represent the problem; for example, if 4 tomato plants each have 6 tomatoes, deciding whether to use an addition or multiplication number sentence, explaining how each number in their number sentence is connected to the situation | Good match |
| **40b** | How many Stickers (8 x 6) using non-counting multiplicative strategies | **GP5**  *(38a-c, 39a-f, & 40a-b)* | Level 3 | Number | VC2M3N08 | **Use mathematical modelling to solve practical problems involving** additive and **multiplicative** **situations**, including financial contexts; formulate problems using number sentences and **choose calculation strategies**, using digital tools where appropriate; **interpret and communicate solutions in terms of the situation**. | **Modelling practical multiplicative situations** using materials or a diagram to represent the problem; for example, if 4 tomato plants each have 6 tomatoes, deciding whether to use an addition or multiplication number sentence, explaining how each number in their number sentence is connected to the situation | Good match |
| **41-43** | **Division Strategies (NB. Q41, 42 and 43 all need to be correct using more sophisticated multiplicative strategies (i.e. non-skip counting) to assign GP6)** | | | | | | | |
| **41a-d** | Interpreting Division – draw a representation | **GP6**  *(41a-d, 42a-f, & 43a-b)* | Level 3 | Number | VC2M3N05 | Multiply and **divide one- and two-digit numbers, representing problems using** number sentences, **diagrams** and arrays, and using a variety of calculation strategies | Applying knowledge of numbers and the properties of operations using a variety of ways to **represent** multiplication or **division** number sentences; for example, using a Think Board to show different ways of visualising 8 × 4, such as an array, a diagram and a worded problem | Good match |
| **42a-f** | Division facts (using basic, derived and intuitive strategies) | **GP6**  *(41a-c, 42a-f, & 43a-b)* | Level 3 | Number | VC2M3N05 | Multiply and **divide** **one- and two-digit numbers,** representing problems using number sentences, diagrams and arrays, and **using a variety of calculation strategies** | Applying knowledge of numbers and the properties of operations using a variety of ways to represent multiplication or division number sentences; for example, using a Think Board to show different ways of visualising 8 × 4, such as an array, a diagram and a worded problem | Good match |
| **43a-b** | Washing Windows (48÷8) | **GP6**  *(41a-c, 42a-f, & 43a-b)* | Level 4 | Number | VC2M4N06 | **Develop efficient mental** and written **strategies** and use appropriate digital tools **for solving problems involving** addition and subtraction, and multiplication and **division where there is no remainder** | Using physical or virtual materials to **demonstrate doubling and halving strategies for solving multiplication problems;** for example, for 5 × 18, using the fact that double 5 is 10 and half of 18 is 9; or using 10 × 18 = 180, then halving 180 to get 90; or applying the associative property of multiplication, where 5 × 18 becomes 5 × 2 × 9, then 5 × 2 × 9 = 10 × 9 = 90 so that 5 × 18 = 90 | Good match |
| **43a-b** | Washing Windows (48÷8) | **GP6**  *(41a-c, 42a-f, & 43a-b)* | Level 4 | Algebra | VC2M4A02 | **Recall and demonstrate proficiency with multiplication facts up to 10 × 10** and related division facts, and explain the patterns in these; extend and apply facts to develop efficient mental and written strategies for computation with larger numbers without a calculator | **Using known multiplication facts** for 2, 3, 5 and 10 **to establish multiplication facts** for 4, 6, 7, 8 and 9 **in different ways; for** example, using multiples of 10 to establish the multiples of 9 as ‘to multiply a number by 9 you multiply by 10 then take the number away’: 9 × 4 = 10 × 4 − 4, so 9 × 4 is 40 − 4 = 36; or using multiples of 3 as ‘to multiply a number by 9 you multiply by 3, and then multiply the result by 3 again’  Using arrays and known multiplication facts for twos and fives to develop the multiplication facts for sevens, applying the distributive property of multiplication; for example, when finding 6 × 7, knowing that 7 is made up of 2 and 5, and using an array to show that 6 × 7 is the same as 6 × 2 + 6 × 5 = 12 + 30, which is 42 | Good match |
| **44-46** | **Extending and Applying Multiplication and Division (NB. Q44, 45 and 46 all need to be correct using sophisticated multiplicative strategies to assign GP7)** | | | | | | | |
| **44** | Off to the circus (97÷20) – how many buses | **GP7**  *(44,  45a-c, &  46a-c)* | Level 5 | Number | VC2M5N07 | **Solve problems involving division, choosing efficient mental** and written **strategies** and using digital tools where appropriate; **interpret any remainder according to the context** and express results as a whole number, decimal or fraction | **Interpreting and solving everyday division problems such** as ‘How many buses are needed if there are 436 passengers and each bus carries 50 people?’, **deciding whether to round up or down in order to accommodate the remainder and justifying choices** | Good match |
| **45a-c** | Stamp Collection (18x5) | **GP7**  *(44,  45a-c, &  46a-c)* | Level 5 | Number | VC2M5N06 | **Solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient mental** and written calculation **strategies** and using digital tools where appropriate; check the reasonableness of answers | **Solving multiplication problems such as 253 × 4 using a doubling strategy**, for example, 2 × 253 = 506 and 2 × 506 = 1012 | Good match |
|  |
| **46a-c** | Rows of Trees in an Orchard (98 ÷ 14) | **GP7**  *(44,  45a-c, &  46a-c)* | Level 5 | Number | VC2M5N09 | **Use mathematical modelling to solve practical problems involving** additive and **multiplicative** **situations**, including simple financial planning contexts; formulate the problems, **choosing operations and efficient mental and written calculation strategies**, and using digital tools where appropriate; **interpret and communicate solutions in terms of the situation** | **Modelling an everyday situation and determining which operations can be used to solve it** using materials, diagrams, arrays and/or bar models to represent the problem; formulating the situation as a number sentence; **and justifying their choice of operations in relation to the situation** | Good match |
| **46a-c** | Rows of Trees in an Orchard  (98 ÷ 14) | **GP7**  *(44,  45a-c, &  46a-c)* | Level 5 | Algebra | [VC2M5A01](https://victoriancurriculum.vcaa.vic.edu.au/Curriculum/ContentDescription/VC2M5A01) | **Recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts** | Using materials or diagrams to **develop and explain division strategies, such as halving, using the inverse relationship to turn division into a multiplication** | Partial match – depending on how students chose to solve this problem. Some may just use division strategies; others may use an understanding of the inverse operations to help solve this |

### SECTION E: TIME

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS** | | | | | |
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| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 code** | **Content Description** | **Elaboration** | **Extent of content match** |
| **47a-g** | Draw a clock(one feature + one purpose) | **GP1**  *(47a-g)* | Level 1 | Measurement | VC2M1M03 | **Describe the duration and sequence of events** using years, months, weeks, days and **hours** | **Naming, listing and using familiar units of time**, **such as hours**, days, weeks and years | Partial match - naming, listing and using hours only |
| **48** | **Telling the time** | | | | | | | |
| **48a** | 2:00 | **GP2**  *(48a)* | Level 1 | Measurement | VC2M1M03 | **Describe the duration and sequence of events using** years, months, weeks, days and **hours** | **Naming, listing and using familiar units of time, such as hours**, days, weeks and years | Partial match – naming, listing and using hours only |
| **48b** | 9:30 | **GP3**  *(48b & 49a-d)* | Level 2 | Measurement | VC2M2M04 | **Recognise and read the time represented on an analog clock to the hour, half-hour** and quarter hour | **Recognising and describing the relationship between the movement of the hands on an analog clock** and the duration of time it represents; for example, connecting the language of ‘half past’ to mean when the ‘big hand’ will be at half past the hour and recognising this position as being halfway around its full cycle | Good match |
| **48c** | 2:20 | **GP4**  *(48c, & 50a-e)* | Level 3 | Measurement | VC2M3M04 | **Describe the relationship between the hours and minutes on analog** and digital **clocks, and read the time to the nearest minute** | **Representing and reading the time on an analog clock using the markings and the positions of the hands, to the nearest minute mark or 5-minute interval** | Good match |
| **49** | **The days and months [NB. All days and all months and Q 49c+d need to be correct to assign GP3]** | | | | | | | |
| **49a** | Days of the week | **GP3**  (*48b & 49a-d)* | Level 1 | Measurement | VC2M1M03 | **Describe the** duration and **sequence of events using years, months, weeks, days** and hours | **Naming, listing and using familiar units of time, such as** hours, **days, weeks and years**  Comparing the number of days in the months of the year and explaining how the months cycle from one year to the next | Partial match – sequence only, not description of duration |
| **49b** | Months of the year |
| **49c** | Day before Friday |
| **49d** | Month before April |
| **50** | **Calendar tasks** | | | | | | | |
| **50a** | Find 18 June | **GP4**  *(50a-e)* | Level 2 | Measurement | VC2M2M03 | **Identify the date and determine the number of days between events using calendars** | **Using calendars to locate specific dates and identify what day it is, to determine the date 2 weeks prior to or after a given date** | Good match |
| **50b** | Day of the week 18 June is | **GP4**  *(50a-e)* | Level 2 | Measurement | VC2M2M03 | **Identify the date and determine the number of days between events using calendars** | **Using calendars to locate specific dates and identify what day it is, to determine the date 2 weeks prior to or after a given date** | Good match |
| **50c** | Show last day in June | **GP4**  *(50a-e)* | Level 2 | Measurement | VC2M2M03 | **Identify the date and determine the number of days between events using calendars** | **Using calendars to locate specific dates and identify what day it is, to determine the date 2 weeks prior to or after a given date** | Good match |
| **50d** | Month after June | **GP4**  *(50a-e)* | Level 2 | Measurement | VC2M2M03 | **Identify the date and determine the number of days between events using calendars** | **Using calendars to locate specific dates and identify what day it is, to determine the date 2 weeks prior to or after a given date** | Good match |
| **50e** | Day of the week 1 July will be | **GP4**  *(50a-e)* | Level 2 | Measurement | VC2M2M03 | **Identify the date and determine the number of days between events using calendars** | **Using calendars to locate specific dates and identify what day it is, to determine the date 2 weeks prior to or after a given date** | Good match |
| **51** | **Duration Tasks [NB. questions 51-53 need to be correct to assign GP5]** | | | | | | | |
| **51a** | 13 minutes after 12:51 | **GP5**  *(51a-b, 52, & 53a-b)* | Level 3 | Measurement | VC2M3M03 | **Recognise and use the relationship between formal units of time, including** days, **hours, minutes** and seconds, **to estimate and compare the duration of events** | **Reading** or setting **the time on digital devices to the minute** or second; for example, setting an online timing device to count down from a set time, or setting the time on a digital clock | Partial match – reading time on digital devices to the minute only |
| **51b** | Another name for 13:51 (if necessary) | **GP5**  *(51a-b, 52, & 53a-b)* | Level 3 | Measurement | VC2M3M03 | **Recognise and use the relationship between formal units of time, including** days, **hours, minutes** and seconds, **to estimate and compare the duration of events** | **Reading** or setting **the time on digital devices to the minute** or second; for example, setting an online timing device to count down from a set time, or setting the time on a digital clock | Partial match - reading time on digital devices to the minute only |
| **52** | **TV Guide** | | | | | | | |
| **52** | Movie length | **GP5**  *(51a-b, 52, & 53a-b)* | Level 3 | Measurement | VC2M3M03 | **Recognise and use the relationship between formal units of time, including** days, **hours, minutes** and seconds**, to estimate and compare the duration of events** | **Reading or setting the time on digital devices to the minute or second; for example, setting an online timing device to count down from a set time, or setting the time on a digital clock** | Partial match - reading time on digital devices to the minute only |
| **53** | **Linking Digital and Analogue Time** | | | | | | | |
| **53a-c** | 8 minutes to 5 (analogue) | **GP5**  *(51a-d, 52, & 53a-b)* | Level 3 | Measurement | VC2M3M04 | **Describe the relationship between the hours and minutes on** **analogue** and digital clocks, **and read the time to the nearest minute** | **Reading and connecting analogue and digital time, interpreting times, and recognising and using the language of time**, for example, 12:15 as a quarter past 12, or 15 minutes past 12; 12:45 as a quarter to one or 15 minutes before one o’clock; and 10:05 as 5 minutes past 10 | Good match |
| **53d** | 8 minutes to 5 (digital) | **GP5**  *(51a-d, 52, & 53a-b)* | Level 3 | Measurement | VC2M3M04 | 1. **Describe the relationship between the hours and minutes on** analogue and **digital clocks**, **and read the time to the nearest minute** | **Reading and connecting analogue and digital time, interpreting times, and recognising and using the language of time**, for example, 12:15 as a quarter past 12, or 15 minutes past 12; 12:45 as a quarter to one or 15 minutes before one o’clock; and 10:05 as 5 minutes past 10 | Good match |
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### SECTION F: LENGTH MEASUREMENT

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 code** | **Content Description** | **Elaboration** | **Extent of content match** |
| **54** | **The string and the stick** | | | | | | | |
| **54a** | The string and the stick prediction |  |  |  |  |  |  |  |
| **54b-c** | The string and the stick accurate comparison | **GP2**  *(54a-c)* | Level 1 | Measurement | VC2M1M01 | **Compare directly** and indirectly and order objects and events **using attributes of** **length**, mass, capacity and duration, **communicating reasoning** | **Using a piece of string to** indirectly **compare the length of several objects**, deciding which will fit within a space, and using comparative language to describe the order (shortest, short, longer, longest) | Partial match – attribute of length only |
| **54d** | The string and the stick some awareness of length concept | **GP1**  *(54d)* | Level F | Measurement | VC2MFM01 | **Identify and compare attributes of objects** and events**, including length**, capacity, mass and duration, use direct comparisons and communicate reasoning | **Using language to describe the measurement attributes of length**, mass, capacity and duration, and connecting the words with the appropriate attribute; for example, using words like ‘tall’, ‘short’, ‘wide’, ‘long’ and ‘high’ to describe the attribute of length | Partial match – some awareness of length only |
| **55** | **The straw and the paper clips** | | | | | | | |
| **55a-b** | The straw and the paper clips accurate use of paperclips with answer of 4 ¼ or 4 and a bit paper clip | **GP3**  *(55a-b)* | Level 2 | Measurement | VC2M2M01 | **Measure and compare objects based on** **length**, capacity and mass **using appropriate uniform informal units and smaller units for accuracy when necessary** | **Choosing suitable informal units to measure the length of a range of objects**, and justifying their choice of a longer unit to measure things that are long (such as the width of a room) and a shorter unit to measure shorter things or when more accuracy is needed | Good match |
| **56** | **Using the ruler** | | | | | | | |
| **56a-b** | Using the ruler (correct measurement of the 20 cm straw) | **GP4**  *(56a-b)* | Level 3 | Measurement | VC2M3M02 | **Measure and compare objects using familiar metric units of length,** mass and capacity, **and instruments with labelled markings** | Using a strip of one-centimetre grid paper to measure and compare the length of objects, **connecting this with centimetre units on a ruler** and using fractions of a graduation to give a more accurate measure | Good match |
| **57** | **Tearing the streamer [NB all parts of Q57 9 (a, b and c) need to be acceptable for GP5 to be assigned]** | | | | | | | |
| **57a** | Tearing the streamer (1 m prediction) | **GP5**  *(57a-c)* | Level 3 | Measurement | VC2M3M02 | **Measure and compare objects using familiar metric units of length**, mass and capacity, and **instruments with labelled markings** | **Making a measuring tape using metric units of length and using it to measure and compare things**, for example, the girth of a tree; and explaining that the lines on a ruler show the beginning and end of each unit | Partial match – student required to demonstrate an understanding of an approximate 1m length as well as being able to measure accurately |
| **57b** | Correct measurement of 93 cm streamer | **GP5**  *(57a-c)* | Level 3 | Measurement | VC2M3M02 | **Measure and compare objects using familiar metric units of length**, mass and capacity, and **instruments with labelled markings** | **Making a measuring tape using metric units of length and using it to measure and compare things**, for example, the girth of a tree; and explaining that the lines on a ruler show the beginning and end of each unit | Partial match – student required to demonstrate an understanding of an approximate 1m length as well as being able to measure accurately |
| **57c** | Calculation of streamer shortfall | **GP5**  *(57a-c)* | Level 3 | Measurement | VC2M3M02 | **Measure and compare objects using familiar metric units of length**, mass and capacity, and **instruments with labelled markings** | **Making a measuring tape using metric units of length and using it to measure and compare things**, for example, the girth of a tree; and explaining that the lines on a ruler show the beginning and end of each unit | Partial match – student required to demonstrate an understanding of an approximate 1m length as well as being able to measure accurately |

### SECTION G: MASS MEASUREMENT

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS 2.0** | | | | | |
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| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 code** | **Content Description** | **Elaboration** | **Extent of content match** |
| **58** | **What do you notice? Different Masses** | | | | | | | |
| **58a-b** | What do you notice – which are heavy which are light? | **GP1**  *(58a-d)* | Level F | Measurement | VC2MFM01 | **Identify and compare attributes of objects** and events, **including** length, capacity, **mass** and duration, **use direct comparisons** and communicate reasoning | **Using language to describe the measurement attributes of** length, **mass**, capacity and duration, and connecting the words with the appropriate attribute; for example, using words like ‘tall’, ‘short’, ‘wide’, ‘long’ and ‘high’ to describe the attribute of length | Partial match – focusses on mass only |
| **58c-d** | Which is heavier | **GP1**  *(58a-d)* | Level 1 | Measurement | VC2M1M01 | **Compare directly and indirectly and order objects and events using attributes of** length, **mass**, capacity and duration, **communicating reasoning** | **Ordering the mass of 3 or more objects, such as rocks, using hefting and balance scales, and using comparative language to explain the order (lightest, light, heavier, heaviest) and how they decided on the order** | Partial match – focusses on mass only.  Good match to elaboration. |
| **58e-f** | Correct use of balance | **GP2**  *(58e-g)* | Level 2 | Measurement | VC2M2M01 | **Measure and compare objects based on** length, capacity and **mass** using appropriate uniform informal units and smaller units for accuracy when necessary | **Using balance scales to compare the mass of several objects, selecting an appropriate informal unit; counting the number of informal units to determine which object is heavier and how much heavier;** and explaining why the informal units chosen need to be the same mass | Partial match – using a balance to compare mass only |
| **58g** | Some awareness of mass | **GP1**  *(58a-d)* | Level F | Measurement | VC2MFM01 | **Identify and compare attributes of objects** and events, **including** length, capacity, **mass** and duration, use direct comparisons and communicate reasoning | **Using language to describe the measurement attributes of** length, **mass**, capacity and duration, and connecting the words with the appropriate attribute; for example, using words like ‘tall’, ‘short’, ‘wide’, ‘long’ and ‘high’ to describe the attribute of length | Partial match – some awareness of mass only required |
| **59** | **Teddies and coins** | | | | | | | |
| **59a-c** | Balancing teddies with coins | **GP3**  *(59a-c)* | Level 2 | Measurement | VC2M2M01 | **Measure and compare objects based on** length, capacity and **mass** **using appropriate uniform informal units and smaller units for accuracy when necessary** | **Using balance scales to compare the mass of several objects, selecting an appropriate informal unit; counting the number of informal units to determine which object is heavier and how much heavier; and explaining why the informal units chosen need to be the same mass** | Partial match – focusses on mass only. Good match to elaboration. |
| **60** | **One kilogram** | | | | | | | |
| **60a-c** | More or less than one kilogram | **GP4**  *(60a-c & 61)* | Level 3 | Measurement | VC2M3M02 | **Measure and compare objects using familiar metric units of** length, **mass** and capacity, **and instruments with labelled markings** | **Measuring and comparing the mass of objects** and capacity of containers, **using** measuring jugs and kitchen or **other scales** **and standard metric units of** millilitres, litres, **grams and kilograms**; and interpreting and explaining what the lines on the measuring jug or scales mean | Partial match – focusses on mass only |
| **61** | **Using standard units** | | | | | | | |
| **61** | Correct use of formal units  (40 g) | **GP4**  *(60a-b & 61)* | Level 3 | Measurement | VC2M3M02 | **Measure and compare objects using familiar metric units of** length, **mass** and capacity, **and instruments with labelled markings** | **Measuring and comparing the mass of objects** and capacity of containers, **using** measuring jugs and **kitchen or other scales and standard metric units** **of** millilitres, litres, **grams and kilograms**; and interpreting and explaining what the lines on the measuring jug or scales mean | Partial match – focusses on mass only |
| **62** | **Using kitchen scales** | | | | | | | |
| **62a** | Correct use of kitchen scales to weigh an object | **GP5**  *(62a-e)* | Level 4 | Measurement | VC2M4M01 | **Use scale and digital instruments to interpret unmarked and partial units to measure and compare** lengths, **masses**, capacities, durations and temperatures, **using appropriate units** | **Reading the mass of objects measured with digital and analog kitchen scales and explaining what unit of mass the lines on the analog scales refer to** | Partial match – focusses on mass only |
| **62b-e** | Correct use of kitchen scales to measure out  135 g of rice |

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### SECTION H: PROPERTIES OF SHAPE

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS** | | | | | |
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| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 Code** | **Content Description** | **Elaborations** | **Extent of content match** |
| **63** | **Sorting shapes** | | | | | | | |
| **63a-c** | Recognising and naming shapes (SOME triangles) | **GP1**  *(63a-c)* | Level F | Space | VC2MFSP01 | Sort, **name** and create **familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons** | **Recognising and naming shapes** that are (close to) rectangles, squares, triangles and circles in component parts of everyday items, for example, on bicycles, toy vehicles or kitchen pantry items | Good match |
| **63a-d** | Recognising and naming shapes (ALL triangles) | **GP2**  *(63a-d)* | Level 1 | Space | VC2M1SP01 | Make, compare and **classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them** | **Classifying** a collection of shapes including different circles, ovals, regular and irregular shapes, triangles and quadrilaterals, saying what is the same about the shapes in a group and what is different between the shapes in a group | Good match |
| **64** | **Choosing triangles** | | | | | | | |
| **64a-c** | Choosing triangles (at least 7 correctly identified) | **GP3**  *(64a-c)* | Level 2 | Space | VC2M2SP01 | **Recognise, compare and classify shapes, referencing the number of sides** and using spatial terms such as ‘opposite’, ‘parallel’, ‘curved’ and ‘straight’ | **Sorting a collection of shapes in different ways based on their features, such as number of sides,** whether all sides are equal and whether pairs of opposite sides are parallel; for example, sorting collections of triangles and other polygons | Partial match – not all triangles need to be identified |
| **64a-c** | Choosing triangles (all 9 correctly identified by properties) | **GP4**  *(64a-c)* | Level 2 | Space | VC2M2SP01 | **Recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as ‘opposite’, ‘parallel’, ‘curved’ and ‘straight’** | **Sorting a collection of shapes in different ways based on their features, such as number of sides, whether all sides are equal** and whether pairs of opposite sides are parallel; for example, sorting collections of triangles and other polygons | Good match |

### SECTION I: VISUALISATION

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS 2.0** | | | | | | |
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| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 Code** | **Content Description** | | **Elaborations** | **Extent of content match** |
| **65** | **Shapes in the Environment** | | | | | | | | |
| **65a-b** | Shapes in the  Environment – find a rectangle | **GP1**  *(65a-b)* | Level F | Space | VC2MFSP01 | | Sort, **name** and create **familiar shapes;** **recognise and describe familiar shapes within objects in the environmen**t, giving reasons | **Recognising and naming shapes that are (close to) rectangles**, squares, triangles and circles **in component parts of everyday items**, for example, on bicycles, toy vehicles or kitchen pantry items | Good match |
| **66** | **Peeking over** | | | | | | | | |
| **66a-c** | Peeking over – visualises at least one partially hidden shape | **GP2**  *(65, 66a-c, 67a-b 68a-b & 69a-b)* | Level 2 | Space | VC2M1SP01 | | **Make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them** | **Selecting a shape** from a small collection of shapes inside a bag **and describing the shape** by feel, so that others can name the shape and give reasons for their choice | Partial match – student needs to visualise potential shapes |
| **67-69** | **Triads** | | | | | | | | |
| **67a-b, 68a-b, &  69a-b** | Triads – describing similarities (with reorientation) | **GP2**  *(65, 66a-c, 67a-b 68a-b, & 69a-b)* |  | Space |  | |  |  |  |
|  | Triads – describing similarities (with dynamic imagery) | **GP3**  *(67b, 68a-b, 69a-b & 70)* |  | Space |  | |  |  |  |
| **70** | Puzzle | | | | | | | | |
| **70** | Puzzle – reorient shapes to fit puzzle | **GP3**  *(67b, 68a-b, 69a-b, & 70)* | Level 2 | Space | VC2M2SP02 | | **Locate positions in two-dimensional representations of a familiar space; move positions** by following directions and pathways | Interpreting maps of familiar places and identifying the position of key features | Partial match – moving shapes without directions |
| **71-72** | **Design + Rearrange the Square (Note: both Q71 and Q72 need to be correct to assign GP4)** | | | | | | | | |
| **71a-c** | Design – recognising part of design (static imagery) | **GP4**  *(71a-c & 72)* | Level 3 | Space | VC2M3SP02 | | **Interpret** and create **two-dimensional representations** of familiar environments, **locating** key landmarks and **objects relative to each other** | Exploring land maps or cultural maps used by Aboriginal and Torres Strait Islander Peoples to locate, identify and position important landmarks such as waterholes | Partial match – recognising a design within a larger design |
| **72** | Rearrange  the square – visualising creating shapes (dynamic imagery) | **GP4**  *(71a-c & 72)* | Level 3 | Space | VC2M3SP02 | | **Interpret and create two-dimensional representations of familiar environments,** locating key landmarks **and objects relative to each other** | Exploring land maps or cultural maps used by Aboriginal and Torres Strait Islander Peoples to locate, identify and position important landmarks such as waterholes | Partial match – focus on dynamic imagery, not just recognising static objects |

### FOUNDATION DETOUR (for students in the first year of school)

| **MATHEMATICS ONLINE INTERVIEW** | | | **VICTORIAN CURRICLUM F-10: MATHEMATICS** | | | | | |
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| **Item No.** | **Task Description** | **GP** | **Level** | **Strand** | **VC 2.0 Code** | **Content Description** | **Elaborations** | **Extent of content match** |
| **F1** | **Quantity tasks/More or less/Conservation** | | | | | | |  |
| F1a | Group teddies by colour | N/A | Level C | Space | VC2MFCSP01 | **Sort and name familiar** shapes and **objects** | Using direct comparison to **sort objects using a single given attribute, such as** size, **colour**, texture or shape; for example, sorting a collection of cars or beads by colour or sorting a collection of pattern blocks by shape | Partial match – identifying rather than sorting one attribute |
| F1b | How many yellow teddies | N/A | Level D | Number | VC2MFDN03 | **Quantify** and compare **collections to at least 10 using counting,** and explain or demonstrate reasoning | **Showing understanding that each object in a group is counted only once and the last number counted answers the question of ‘How many?’**; for example, counting 9 books and answering 9 when asked ‘How many books are there?’ | Partial match –a collection of 4 only |
| F1c | More green or more yellow teddies | N/A | Level D | Number | VC2MFDN03 | Quantify and **compare collections** to at least 10 using counting, **and explain or demonstrate reasoning** | Using counting to **compare the size of 2** or more **collections of like items to justify which collection contains more or fewer items;** for example, playing ‘go fish’ and counting the pairs to determine who won the game (‘Who has more?’, ‘Who has less?’) | Partial match – concept of more only |
| F1d | Get 5 blue teddies | N/A | Level D | Number | VC2MFDN03 | **Quantify** and compare **collections to at least 10 using counting**, and explain or demonstrate reasoning | **Showing understanding that each object in a group is counted only once** and the last number counted answers the question of ‘How many?’; for example, counting 9 books and answering 9 when asked ‘How many books are there?’ | Partial match – “get 5 teddies” is a different process to “how many teddies” |
| F1e i | Quantity task/ Conservation – put teddies in a line | N/A | Level D | Number | VC2MFDN03 | **Quantify** and compare **collections to at least 10 using counting**, and explain or demonstrate reasoning | **Showing understanding that each object in a group is counted only once** and the last number counted answers the question of ‘How many?’; for example, counting 9 books and answering 9 when asked ‘How many books are there?’ | Partial match – main concept here is quantity conservation when objects are moved |
| F1e ii | Quantity task/ Conservation – hide teddies | N/A | Level D | Number | VC2MFDN03 | **Quantify** and compare **collections to at least 10 using counting**, and explain or demonstrate reasoning | **Showing understanding that each object in a group is counted only once** and the last number counted answers the question of ‘How many?’; for example, counting 9 books and answering 9 when asked ‘How many books are there?’ | Partial match – main concept here is quantity conservation when objects are hidden |
| F1f | Quantity task/ 5+3 teddies (screened) | N/A | Level D | Number | VC2MFDN05 | **Represent practical situations,** including simple financial situations, **involving addition,** subtraction and quantification **up to at least 10 with physical** and virtual **materials** and use matching or counting strategies | **Modelling practical situations involving ‘adding to’** or ‘taking away’ **with collections of at least 10 objects in** digital or **physical format**  **Using counting strategies**, including counting all, **counting on from the larger number** and counting back, **using concrete materials,** number lines, ten-frames and counting charts | Good match |
| F1g | Quantity task/ 5+3 teddies (unscreened) | N/A | Level D | Number | VC2MFDN05 | **Represent practical situations,** including simple financial situations, **involving addition,** subtraction and quantification **up to at least 10 with physical** and virtual **materials** **and use matching or counting strategies** | **Modelling practical situations involving ‘adding to’** or ‘taking away’ **with collections of at least 10 objects in** digital or **physical format** | Good match |
| **F2** | **Location/pat tern/ordinal number** | | | | | | |  |
| F2a | Location – beside, behind, in front of | N/A | Level F | Space | VC2MFSP02 | **Describe the position and location of themselves and objects in relation to other people and objects within a familiar space** | **Describing the position of an item in relation to other items in the space** using language like ‘inside’, ‘underneath’ and ‘on top of’; for example, when asked ‘Where are the scissors kept?’, responding with ‘They are in a box, on the bottom shelf at the back of the classroom’ | Good match |
| F2b-e | Pattern – copy and extend | N/A | Level F | Algebra | VC2MFA01 | **Follow a short sequence of instructions; recognise, copy, continue and create repeating patterns represented in different ways** | **Recognising and describing repeating patterns** that can be observed on Country/Place and in Aboriginal and Torres Strait Islander artwork, cultural performances and material cultures, for example, shell and seed necklaces, dances and songs | Good match |
| F2f-g | Ordinal number – 3rd and 5th | N/A | Level F | Number | VC2MFN01 | **Name**, represent **and order numbers,** including zero to at least 20, **using physical** and virtual **materials** and numerals | **Understanding and using terms to indicate ordinal position in a sequence;** for example, filling in the missing term in ‘first’, ‘second’, ‘third’, … ‘fifth’ …, or creating a number track using cards with the numerals zero to 20 and describing positions using terms such as ‘first’, ‘last’, ‘before’, ‘after’ and ‘between’ | Partial match – focus on naming and recognising ordinal numbers only |
| **F3** | **Subitising/Matching Numerals to Quantities/Ordering** | | | | | | |  |
| F3a | Subitising – dot cards | N/A | Level F | Number | VC2MFN02 | **Recognise and name the number of objects within a collection up to 5 using subitising** | **Recognising how many objects are in a collection or in images on a card with a quick look and saying the associated number without counting** | Good match –also includes conceptual subitising up to 9 |
| F3b | Matching numerals to quantities (0-9) | N/A | Level D | Number | VC2MFDN01 | **Name, represent** and order **numbers** **including zero to at least 10, using physical and virtual materials and numerals** | **Matching numerals to the correct number of items; for example, when shown a collection of beanbags, counting them and choosing the correct numeral** or collecting a quantity of objects by reading a numeral; for example, collecting 7 pencils after reading the numeral **7** | Good match |
|  |  |  |  |  |  |  |  |  |
| F3c-e | Ordering number cards 0-9 | N/A | Level F | Number | VC2MFN01 | Name, represent and **order numbers, including zero** to at least 20, **using** physical and virtual materials and **numerals** | **Connecting quantities to number names and numerals** when reading and reciting stories and playing counting games or determining and reasoning about the size of sets of objects within Aboriginal and/or Torres Strait Islander Peoples’ instructive games, for example, Segur etug from Mer Island in the Torres Strait region | Partial match – ordering 1-digit numbers/numerals only |
| **F4** | **Part-part-whole / 1 more / 1 less / One to One Correspondence** | | | | | | |  |
| F4ai | Part-part- whole – show 6 fingers | N/A | Level F | Number | VC2MFN04 | **Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts** | **Partitioning collections of up to 10 objects in different ways and saying the part-part-whole relationship**; for example, partitioning a collection of 6 counters into 4 counters and 2 counters and saying, ‘6 is 4 and 2 more, it’s 2 and 4’, then partitioning the same collection into 5 and 1 or 3 and 3 | Partial match – students could just count the six fingers without recognising any parts |
| F4aii | Part-part- whole – show 6 fingers another way | N/A | Level F | Number | VC2MFN04 | **Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts** | **Partitioning collections of up to 10 objects in different ways and saying the part-part-whole relationship**; for example, partitioning a collection of 6 counters into 4 counters and 2 counters and saying, ‘6 is 4 and 2 more, it’s 2 and 4’, then partitioning the same collection into 5 and 1 or 3 and 3 | Good match |
| F4aiii | Part-part- whole – show 6 fingers yet another way | N/A | Level F | Number | VC2MFN04 | **Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts** | **Partitioning collections of up to 10 objects in different ways and saying the part-part-whole relationship**; for example, partitioning a collection of 6 counters into 4 counters and 2 counters and saying, ‘6 is 4 and 2 more, it’s 2 and 4’, then partitioning the same collection into 5 and 1 or 3 and 3 | Good match |
| F4b | One to one correspondence – straws in cups | N/A | Level B | Number | VC2MFBN06 | **Share physical objects and collections equally in practical situations** | **Distributing objects** to others **in everyday situations by demonstrating one-to-one correspondence;** for example, handing out one paintbrush to each student from a collection of paintbrushes | Good match |
| F4c (i-iii) | 1 more than 4, 10, 15 | N/A | Level D | Number | VC2MFDN05 | **Represent** practical **situations**, including simple financial situations, **involving addition**, subtraction **and quantification** up to at least 10 with physical and virtual materials or counting strategies | **Using role-play and materials to represent mathematical relationships** in stories; for example, role-playing ‘Five kangaroos were drinking at the river and 3 hopped away’, drawing a picture and using materials to represent the situation, and recording the result of the action with a numeral | Partial match – understanding one more (+1) only |
| F4d (i-iii) | 1 less than 3, 12, 20 | N/A | Level D | Number | VC2MFDN05 | **Represent** practical **situations**, including simple financial situations, **involving** addition, **subtraction** **and quantification** up to at least 10 with physical and virtual materials or counting strategies | **Using role-play and materials to represent mathematical relationships** in stories; for example, role-playing ‘Five kangaroos were drinking at the river and 3 hopped away’, drawing a picture and using materials to represent the situation, and recording the result of the action with a numeral | Partial match – understanding one less (-1) only |
| **F5** | **Comparing and Ordering** | | | | | | |  |
| F5a | Ordering size (3 candles) | N/A | Level D | Measurement | VC2MFDM01 | **Identify and compare attributes of objects and events, including length**, capacity, mass and duration, **using direct comparison** | **Using direct comparison to compare objects based on their length**, mass or capacity; for example, pouring water from one container into another to identify which holds more and which holds less, or hefting objects such as a tin of spaghetti and a bag of marshmallows to determine ‘heavier’ and ‘lighter’ | Good match – context involving shorter/longer with three objects |
| F5b | Ordering size (4 candles) | N/A | Level D | Measurement | VC2MFDM01 | **Identify and compare attributes of objects and events, including length**, capacity, mass and duration, **using direct comparison** | **Using direct comparison to compare objects based on their length**, mass or capacity; for example, pouring water from one container into another to identify which holds more and which holds less, or hefting objects such as a tin of spaghetti and a bag of marshmallows to determine ‘heavier’ and ‘lighter’ | Good match – context involving shorter/longer with four objects |