# Assessment Schedule – Term 3, Week 2, 2025

## Numeracy: Apply mathematics and statistics in a range of everyday situations (32406)

### Assessment Criteria

| Outcome 1 | Outcome 2 | Outcome 3 |
|---|---|---|
| Formulate mathematical and statistical approaches to solving problems in a range of everyday situations. | Use mathematics and statistics to meet the numeracy demands of a range of everyday situations. | Explain mathematical and statistical responses to situations. |

### Evidence

| Question | Correct response / Judgement | Outcome | | | Scoring response | Validation | | Mark A or H |
|---|---|---|---|---|---|---|---|---|
| **ONE** | | 1 | 2 | 3 | | **Type** | **Max characters** | |
| (a) | (iii) 3 (3rd) | ✓ | | | Choice C (3) | Multichoice | | A |
| (b) | Position taken: Yes, no, or unclear.<br>Must show correct reading of numbers from the graph, or it can be reasonably inferred they have read the numbers correctly.<br>A total of **16** or **71** is sufficient evidence of correct calculation. All numbers in the sum need not be explicitly stated if the total is correct.<br>Must show evidence of a percentage calculation. Presence of **18.4**% or **81.6**% is sufficient. Accept rounding up or down of those percentages.<br>**Note:** It is accepted if the student calculates the required number of movies first using 20% x 87 = 17.4 ≈ 17 and compares that number to 16.<br>**Examples of explanation.**<br>Position taken: No, the magazine is incorrect. 18.4% is not 20%.<br>Working: The number of movies in 2025 with a length of 130 minutes or more is 16 (8 + 3 + 4 + 1). 16/87 = 18.4 % which is not 20%.<br>*OR*<br>Position taken: Yes, the magazine is correct.<br>18.4% is close to 20% (same working shown above). | | | ✓ | | | | H |

| Question | Correct response / Judgement | Outcome | | | Scoring response | Validation | | Mark A or H |
|---|---|---|---|---|---|---|---|---|
| (c) | 5:33 p.m. *(p.m. not required).*<br>Accept 5.33, 17:33, 533. | | ✓ | | 5:33<br>5.33<br>533<br>17:33 | Num w dec[1] | 6 | A |
| (d) | $**8.20** *(unit not required).*<br>Working: 0.8 x $91 = $72.80 + $10 fee = $82.80. $91 – 82.80 = $8.20. | | ✓ | | 8.20 | Num w dec[1] | 6 | A |
| (e) | Position taken: Yes, buying one combo costs less.<br>Must show evidence of correctly calculating the usual prices and the cost of one combo. Accept if only the totals of $39.00 and $36.40 are given.<br>Also accept recognition that ice creams are the same cost so only the cost of popcorn and drinks is required. That gives $32 and $29.40 respectively.<br>Also allow if only the difference of $2.60 is given, e.g. That's $2.60 cheaper.<br>**Example of explanation:**<br>Buying the items at usual snack price gives 1 x $12 + 2 x $10 + 1 x $7.00 = $39.00.<br>One combo + ice cream total $36.40.<br>That is a saving of $2.60.<br>**Note:** *The amount of saving is NOT required if both totals are given.* | | | ✓ | | | | H |
| (f) | **3** L *(unit not required)*. 25 x 8 x 15 = 3,000 $cm^3$, 3,000 ÷ 1,000 = 3 L. | | ✓ | | 3 | Numeric | 5 | A |

[1] Numeric with decimal.

| Question | Correct response / Judgement | Outcome | | | Scoring response | Validation | | Mark A or H |
|---|---|---|---|---|---|---|---|---|
| **TWO** | | 1 | 2 | 3 | | **Type** | **Max characters** | |
| (a) | 12% x 206 = 24.72 so **24** rib bones. Also accept 25 bones.<br>(*24.72 not accepted as this is about number of bones*). | ✓ | | | 24 or 25 | Num w dec[1] | 5 | A |
| (b) | (ii) ⅓ | ✓ | | | Choice B (ii) | Multichoice | | A |
| (c) | $1,932 | | ✓ | | 1,932<br>1 932<br>1932 | Num w dec[1] | 7 | A |
| (d) | 960 | ✓ | | | 960 | Numeric | 6 | A |
| (e) | Position taken: Agree, disagree, or unclear.<br>Explanation must discuss trend over the time of the run and be supported by <u>at least one</u> time-to-blood sugar level reading. The time-to-blood sugar levels readings must be appropriate to the argument and might extend either side of the timing of the run. Allow one minor error in reading time-to-blood sugar *only* if at least one correct reading is given.<br>**Examples of explanation:**<br>Position taken: Agree.<br>The blood sugar level increased from 6.1 at 6:00 a.m. to 7 at 7:00 a.m. while they were exercising. The BSL dropped after they stopped running at 7:00 a.m.<br>Position taken: Disagree.<br>The person's blood sugar level was already increasing before they started running. At 5:00 a.m. the level was about 4.3 and increased to about 6.1 when the runner started running. The increase in blood sugar level may be caused by something else other than running. | | | ✓ | | | | H |
| (f) | 6 hours *(unit not required*). Also accept 5.8 (if SPF 29 is used). | ✓ | | | 6<br>5.8 | Num w dec[1] | 4 | A |

| Question | Correct response / Judgement | Outcome | | | Scoring response | Validation | | Mark A or H |
|---|---|---|---|---|---|---|---|---|
| **THREE** | | 1 | 2 | 3 | | **Type** | **Max characters** | |
| (a) | Accept in the range 14 to 18 servings.<br>The fraction for fruit and vegetables is about 1/3. 1/3 × [ ] = 5 *so* [ ] = 15. | ✓ | | | 14, 15, 16, 17, 18 | Numeric | 3 | A |
| (b) | (iii) | ✓ | | | Choice C (iii) | Multichoice | | A |
| (c) | **28** (7 x 4) or **40** (8 x 5) if they planted on the edge. | | ✓ | | 28 or 40 | Numeric | 4 | A |
| (d) | (ii) | ✓ | | | Choice B (ii) | Multichoice | | A |
| (e) | 4 | | ✓ | | 4 | Numeric | 4 | A |
| (f) | Position taken: Agree, disagree, or unclear.<br>Explanation must discuss the vegetable prices in May compared to the prices in other months. Must use at least one month–price pair in the answer or provide sufficient evidence that it can be inferred that they have correctly read the month–price relationship.<br>**Examples of explanation:**<br>Agree. The prices in May seem to be lower than in the other months. In May 2021, the price was about $7.50 which is lower than any other month in 2021. That happens in May 2022 as well. The price is about $16.00 which is less than most other months in 2022.<br>Disagree. The price of the vegetables is lower from December 2020 to May 2021 from $11.00 to $7.50. After that the prices stay higher all year round. From December 2021 to September 2023, the prices are always high, between $16.00 and $23.00.<br>*Other possible responses that use dates and $values appropriately to convey their explanation.* | | | ✓ | | | | H |

| Question | Correct response / Judgement | Outcome | | | Scoring response | Validation | | Mark A or H |
|---|---|---|---|---|---|---|---|---|
| **FOUR** | | 1 | 2 | 3 | | **Type** | **Max characters** | |
| (a) | $**141** | | ✓ | | 141 | Numeric | 4 | A |
| (b) | $**7.68** or $**7.70** | | ✓ | | 7.68<br>7.70 | Num w dec[1] | 6 | A |
| (c) | **15** minutes *(unit not required*). | ✓ | | | 15<br>15.0<br>15.00 | Num w dec[1] | 4 | A |
| (d) | 30 to 35 kilometres per hour *(unit not required*). | ✓ | | | 30, 31, 32, 33, 34, 35 | Numeric | 4 | A |
| (e) | 65 º or 70 º *(unit not required).* | | ✓ | | 65, 66, 67<br>68, 69, 70 | Numeric | 2 | |
| (f) | Position taken: Agree, disagree, or unclear.<br>The position must be supported with evidence, including:<br>• some trend over time<br>• at least one correct date–claims pair, *OR* clear evidence that the student understands how claims changed over time.<br>It is acceptable if the candidate:<br>• notes that year-to-year variation makes the trend hard to see<br>• gives a correct difference in claim numbers between two years (especially 2018 and 2024), *OR*<br>• identifies the 2019 spike and the drop after 2019.<br>**Examples of explanations:**<br>Agree. The drop in numbers from 3,181 in 2019 to 1,795 in 2020 represent the Covid years, so less people were out to use the e-scooters. The number of claims went up between 2018 and 2024 from 622 to 1503. This shows that there are more claims. | | | ✓ | | | | H |

| | | | | | | | | |
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| | Disagree. In 2019, there were 3,181 claims, but after that year the numbers of claims have been smaller (between 2,573 and 1,503 claims), which is lower than 3,181.<br><br>*Other reasonable responses accepted if they include information from the graph.* | | | | | | | |

| Question | Correct response / Judgement | Outcome | | | Scoring response | Validation | | |
|---|---|---|---|---|---|---|---|---|
| **FIVE** | | 1 | 2 | 3 | | **Type** | **Max characters** | |
| (a) | (iv) 2.8 million | | ✓ | | Choice D (iv) | Multichoice | | A |
| (b) | Position taken: Agree or disagree.<br>The position must be supported by an explanation of how the angle measure can be estimated using benchmarks such as 90º (right angle), or 45º as a trusted angle.<br>**Examples of explanations:**<br>Position taken: Agree supported by an explanation about estimating angle measure.<br>90 degrees is a right-angle and line down the swimmer's arm, it looks about one-third between 90 and 0, so it is near 30 degrees.<br>Position taken: Disagree supported by an explanation about estimating angle measure.<br>90 degrees is a right-angle (downwards) and with the line down the swimmer's arm, the angle looks closer about half a right angle, so it is closer to 45 degrees. | | | ✓ | | | | H |
| (c) | 1.25 metres per second *(unit not required*). | | ✓ | | 1.25 | Num w dec[1] | 6 | A |
| (d) | 1,000 $m^3$ *(units not required*). | ✓ | | | 1,000<br>1 000<br>1000 | Num w dec[1] | 6 | A |
| (e) | Position taken: Agree or disagree.<br>That position must be supported by correct calculation with decimals. If the difference of 0.09 seconds is given, assume the calculation was correct. There must be comparison of 0.09 secs and one tenth of a second (0.1 need not be mentioned).<br>**Examples of explanations:**<br>Position taken: Yes, supported by calculation with decimals.<br>The statement is correct. Silver medal time is 49.99 seconds. Gold medal time is 49.90 seconds. The difference is 0.09 of a second. 49.99 – 49.90 = 0.09 seconds. Nine hundredths are close to one tenth of a second.<br>Position taken: No, supported by calculation with decimals.<br>Same reasoning as above but recognising that 0.09 seconds is not equal to one tenth of a second. (Close but not correct). | | | ✓ | | | | H |
| (f) | (iv) West and North-west. | | ✓ | | Choice D (iv) | Multichoice | | A |