Assessment Schedule – Term 3, Week 1, 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)	(ii) 2 (2^{nd})	✓			Choice B (ii)	Multichoice		A
(b)	Position taken: Yes, no, or unclear. Must show correct reading of numbers from the graph, or it can be reasonably inferred they have read the numbers correctly. A total of **71** or **16** is sufficient evidence of correct calculation. All numbers in the sum need not be explicitly stated if the total is correct. Must show evidence of a percentage calculation. Presence of **81.6**% or **18.4**% is sufficient. Accept rounding up or down of those percentages. Note: It is accepted if the student calculates the required number of movies first using 80% x 87 = 69.6 ≈ 70 and compares that number to 71. **Examples of explanation:** The number of movies in 2025 with a length of less than 130 minutes is 71 (4 + 14 + 25 + 16 + 12) out of the 87 movies. 71 / 87 is about 81.6%, which is about the 80% stated. OR The number of movies in 2025 with a length of 130 minutes or more is 16 (8 + 3 + 4 + 1). 16 / 81 = 18.4 %. 100 – 18.4 = 81.6%, which is about 80%. Position taken: No, the magazine is incorrect. They may miss the word ‘about’. Same working as above, but conclusion is that 81.6% is NOT 80%.			✓				H

Question	Correct response / Judgement	Outcome			Scoring response	Validation		Mark A or H
	Also accept that the magazine is incorrect where the student does not include 120 to 130 bar as "less than 130", i.e., 4 + 14 + 25 + 16 = 59 / 87 which is about 67.8%, which is nowhere near 80%.							
(c)	7:38 p.m. *(p.m. not required*). Accept 7.38, 19:38, 738.		✓		7:38 7.38 738 19:38	Num w dec[1]	6	A
(d)	$**17.30** *(unit not required*). Working: 0.7 x $91 = $63.70 + $10 fee = $73.70. $91–$73.70 = $17.30		✓		17.30	Num w dec[1]	6	A
(e)	Position taken: Yes, buying two combos costs less. Explanation must show evidence of correctly calculating the usual prices and the cost of two combos. Accept if only the totals of $78 and $72.80 are given. Also accept recognition that ice creams are the same cost so only the cost of popcorn and drinks is required. That gives $64 and $58.80 respectively. Also accept comparison of one combo with the equivalent at normal prices ($39 and 36.40 respectively). Incorrect calculations **not** accepted. Also allow if one correct total and the difference of $5.20 are given, e.g. The combos cost $72.80. That's $5.20 cheaper. **Example of explanation:** Buying the items at usual snack price gives 2 x $12 + 4 x $10 + 2 x $7.00 = $78.00. Two combos + two ice creams total $72.80. That is a saving of $5.20. 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)	26% x 206 = 53.56 so 54 bones in both hands. Also accept 53 bones. *Do not accept 53.56 as this is about number of bones.*	✓			54 or 53	Num w dec[1]	5	A
(b)	(iv) ⅓	✓			Choice D (iv)	Multichoice		A
(c)	$2,070		✓		2,070 2 070 2070	Num w dec[1]	6	A
(d)	1,080	✓			1,080 1 080 1080	Num w dec[1]	6	A
(e)	Position taken: Agree, disagree, or unclear. Explanation must discuss trend **around** the time of the run and be supported by <u>at least one</u> correct 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. **Examples of explanation:** Position taken: Agree. The blood sugar level dropped while they were exercising (2:30 p.m. = 14:30). At 2:30 p.m. the blood sugar level was about 6.5. The level dropped to 5.8 at 3 p.m. (15:00) and kept dropping while they were running. It dropped to 5.3 at the end of the run. Position taken: Disagree. The person's blood sugar level was already dropping before they started running. At 2 p.m. (14:00) the level was about 6.9 and dropped to 6.5 at 2:30 p.m. (14:30). The drop in blood sugar level may be caused by something other than running. **Note:** Accept error in misreading 24-hour time on horizontal axis, i.e. 2:30 = 2:30 p.m., only if supporting argument is strong. In that case the student will say the blood sugar level rose initially then dropped back almost to pre-run levels. At least one time-to-blood sugar level reading must be stated.			✓				H
(f)	10 hours *(unit not required).* Also accept 9.8 (for SPF49).	✓			10, 10.0, 9.8	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. The fraction for fruit and vegetables is about 1/3. 1/3 × [ ] = 5 *so* [ ] = 15.	✓			14, 15, 16, 17, 18	Numeric	3	A
(b)	(iv)	✓			Choice D (iv)	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)	(iv)	✓			Choice D (iv)	Multichoice		A
(e)	4		✓		4	Numeric	2	A
(f)	Position taken: Agree, disagree, or unclear. Explanation must discuss trend over time after the floods (post July 2022) compared to prices in July 2022 or before. They 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. **Examples of explanation:** Agree. At the beginning of the floods, July 2022, the vegetables cost about $16.00. At the end of the floods, March 2023, the vegetables cost about $22.50. After September 2023, the price of the vegetables returned to about $10.00. Disagree. The price of vegetables began rising before the floods. In March 2022 the price went up to about $20.00.			✓				H

Question	Correct response / Judgement	Outcome			Scoring response	Validation		Mark A or H
FOUR		1	2	3		**Type**	**Max characters**	
(a)	$**187**		✓		187	Numeric	6	A
(b)	$**6.96** or $**7.00**		✓		6.96 7 7.00	Num w dec[1]	6	A
(c)	**15** minutes *(unit not required).*	✓			15 15.0 15.00	Num w dec[1]	5	A
(d)	55 to 60 kilometres per hour *(unit not required).*	✓			55, 56, 57, 58, 59, 60	Numeric	2	A
(e)	65 º or 70 º *(unit not required).*		✓		65, 66, 67 68, 69, 70	Numeric	2	
(f)	Position taken: Agree, disagree, or unclear. The position must be supported with evidence, including: • some trend over time • at least one correct date–claims pair, *OR* clear evidence that the student understands how claims changed over time. It is acceptable if the candidate: • notes that year-to-year variation makes the trend hard to see • gives a correct difference in claim numbers between two years (especially 2018 and 2024), *OR* • identifies the 2019 spike and the drop after 2019. **Examples of explanations**: Agree. 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.			✓				H

	Unclear. 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 climbed in 2021 to 2022 so you cannot say with certainty that there are fewer claims. *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) 3.7 million		✓		Choice D (iv)	Multichoice		A
(b)	Position taken: Agree or disagree. The position must be supported by an explanation of how the angle measure can be estimated using benchmarks such as 90º (right angle), or 30º as a trusted angle, or 45º as one eighth of a full turn. It is acceptable for a student to reference half-way between vertical and horizontal. **Examples of explanations:** Agree. A 90-degree angle would be straight down from the water level. The swimmer's arm looks about halfway between 90º and 0º, so it is near 45 degrees. Agree: 90 degrees is three angles of 30 degrees, and the angle looks to be halfway between 30 degrees and 60 degrees. Disagree. 90 degrees is a right-angle (downwards) and with the line down the swimmer's arm, the angle looks closer to directly downwards, so it is bigger than 45 degrees.			✓				H
(c)	1.25 metres per second *(unit not required*).		✓		1.25	Num w dec[1]	6	A
(d)	2,500 m^3 *(unit not required*).	✓			2,500 2 500 2500	Num w dec[1]	6	A
(e)	Position taken: Agree or disagree. That position must be supported by correct calculation with decimals. If the difference of 0.55 seconds is given, assume the calculation was correct. There must be comparison of 0.5 secs and 0.55 secs. **Examples of explanations:** The statement is correct. Bronze medal time is 50.45 seconds. Gold medal time is 49.90 seconds. The difference is 0.55 of a second. 50.45 – 49.90 = 0.55 seconds. That is about half a second. Position taken: No, supported by calculation with decimals. Same reasoning as above but recognising that 0.55 seconds is longer than half a second.			✓				H
(f)	(ii) Between West and North-west.		✓		Choice B (ii)	Multichoice		A