

32406 Numeracy Assessment Schedule

September CAA 2, 2022

Question #	Answer/Judgement	Outcome		
		1	2	3
1a	4 300			
1b	10.50 (unit already given)			
1c	Yes, Kahu is right. Reference to the intercept at (100, 0) meaning that they make a loss for less than 100 hāngi packs. Accept if 100 or less is used. May be expressed in an informal way such as “They only start making money after 100 packs. Before 100 packs they lose money” or “The money they make grows after 100, it is negative before 100 packs.”			
2a	C 2950 grams			
2b	1568 – 2697 grams of dry food and 14 – 16 sachets of wet food.			
2c	Any prediction that appropriately uses data from the graph. Inference that student interprets the growth curve correctly. Examples might be: Agree: Georgia is below average weight at 4 months. 5 Kilograms is below average weight at 12 months. Disagree: Georgia is closing in on average weight at 4 months. 5.5 kilograms, average weight for 12 months, is a better prediction.			
3a	September 2023. Accept only September.			
3b	338.20 (Unit already included)			
3c	Accept any valid argument derived from the tree diagram information and the 70% pass claim. Examples might be: Claim not supported: Only 4/10 or 40% of Pita’s friends pass on the first try and only 3/6 or 50% pass on the second try. Claim could still be valid: Ten is a small group so the results might vary from the results of all people sitting the test. Pita’s friends might not have studied very hard for the test, so their results are poor (Percentages as given above).			
4a	\$98.69 or \$98.70 (Accept if unit not given) May have calculated for 12 pairs \$1184.32.			
4b	Wholesale Sports Option 2			
4c	Graph 4			
5a	45-60% Option 2			
5b	160-165 (Unit already given)			
5c	Any valid argument that is supported by data from the table and compares the models by at least two variables (price, fuel consumption, range). Examples might be: Agree that Hybrids are best value Purchase price is more than petrol and less than electric (\$45,190 vs \$61,990 and \$32,490. Might be coupled with fuel cost being cheaper than petrol but dearer than electric (\$11.00 per 100km vs \$3.00 and \$15.00). Might mention that hybrids also give better max. distance (960 km vs 270km and 780 km). Disagree that Hybrids are best value Purchase price is dearer than petrol vehicle (\$45,190 vs \$32,490) Higher fuel cost than electric (\$11.00 per 100 km vs \$3.00)			

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6a	3 hours 20 minutes. Accept in range 3 - 4 hours			
6b	133 -134 (Units already given)			
6c	Any valid argument based on data from the table that uses 10% as a reference when needed. Any comparisons made in one currency. May include observation that some prices are higher in Vanuatu (Milk and bread). Example answers might be: Agree Vanuatu is 10% cheaper based on examples such as 1 dozen eggs ($6.25 \div 7.06 = 0.885$ or 88.5%) and bananas ($0.67 \div 2.75 = 0.244 = 24.4\%$). Disagree based on examples where Vanuatu prices are dearer such Milk (\$3.13 vs \$3.12), and bread (\$3.33 and \$3.30). Note rice is 3% cheaper in Vanuatu, not 10%. Student might compare total of prices: Vanuatu \$16.50 and NZ \$19.48 and calculate $16.50 \div 19.48 = 0.847 = 84.7\%$ and argue Vanuatu prices are more than 10% cheaper.			

7a	Any valid argument based on information from the advertisements. Inference that $\$180 - 25\% = \135 has been calculated. Examples might be: Price. Sole Train (\$135), Alleyquick (\$120) and Rainforest (\$132). Availability: Alleyquick is cheapest but Sole Train has immediate pickup compared to the online retailers.			
7b	Option 3 Early September. Accept Late August as well.			
7c	Any valid argument based on information from the graph that includes reference to a trend over the three years (2001, 2011, 2021). Might be stated informally. Examples might be: Disagree Almost 50% of adults rarely or never shop online in 2021. Unlikely that these people will now switch to online shopping. Agree The percentage of people shopping online always and often has grown for 10% in 2001 to over 50% in 2021. By 2031 the percentage will be higher.			

8a	Option 4			
8b	Box located $\frac{1}{4}$ along the rectangle from left/ $\frac{3}{4}$ from the right.			
8c	Accept any valid position that is supported by information. Examples might be: Accept claim based on 56% (16% + 40%) of respondents chose Happy or Very Happy with the design. Reject claim based on a sample to population inference. While 56% of respondents chose Happy or Very Happy the sample is gathered on Saturday morning and is unlikely to be representative of all Te Puke residents. Note this goes beyond the standard (inference) and is a misreading of the claim statement. Accept these answers.			

9a	Six (3rd option down)			
9b	1 or 2 x Piece A, 2 x Piece B, 0 x Piece C, 2 x Piece D, 1 x Piece E			
9c	6.64 m ² (Accept in range 6 – 7 m ²)			

Question #	Answer/Judgement	Outcome		
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10a	147 (Option 3)			
10b	225 – 250 Accepted			
10c	<p>Any valid claim based on the information in the graph. Some inference may be required that students have read the graph correctly.</p> <p>Examples might be: Support the case since 225 (7-8 am) and 250 (8-9 am) vehicles pass through the intersection in the morning and about 315 (3-4 pm) vehicles pass through in the evening rush hour. May include reference to only one hour block having over 200 vehicles. Reject the case by selecting times that should be busy and do not meet the 200+ vehicles requirement. About 180 vehicles pass through the intersection in the 5- 6 pm period.</p>			

End of Assessment Schedule