Sample Assessment Schedule – 2025

Mathematics and Statistics: Interpret and apply mathematical and statistical information in context (91946)

Evidence

Q	Evidence	Achievement	Merit	Excellence
ONE (a)	Television: Approximately $500 million Radio: Approximately $250 million Then $500 – $250 = $250 million *Accept in range of $220 to $270 million for radio.* *Must include units of millions of dollars.*	• Correct answer, with supporting evidence from the resource.		
(b)	Cell phone spending is the most at $600 million for 2024; this is followed by TV and books that have $256 million and $183 million. Newspapers and magazines appear to be the least bought at $10 and $50 million. Cellphone expenditure in New Zealand is over twice as much as the other large-expenditure items. *Accept other valid non-trivial comments.*	• Correctly describes the trends in amount spent on products.	• Provides numerical evidence to describe the amounts. AND • Makes a comment regarding the relative sizes.	
(c)	Spending on digital advertising has steadily increased over the past 11 years. Television advertising spending has been steady, but since 2020, it has decreased slightly. Spending on advertising in newspapers / magazines has steadily decreased since 2012. Radio advertising spending has stayed the same for the past 11 years. Statistical reasoning. *Accept any variation and combination of comparison or contrasts of the different platforms.*	• Two correct statements that compares OR contrasts two different platforms.	• Three correct statements that compare OR contrast two different platforms, including clear supporting evidence from the graph.	• Three correct statements that compare OR contrast two different platforms, with supporting evidence from the graph. AND Justifies and evaluates this using statistical reasoning.

| (d) | The amount of advertising being spent on digital has been steadily increasing, which links to the most popular product New Zealanders are buying being cell phones of $600 million.

We would expect to see companies spending more on digital advertising because this seems to be more popular than traditional things like newspapers and magazines.

New Zealanders are not spending much on newspapers / magazines, so companies are choosing to use alternative sources for their advertising.

The second-most amount spent on advertising is on television, which also links to the amount of spending New Zealanders are doing on TVs, with this being the second-most amount at $256 million. I predict this to continue, as most households still have a TV.

Money spent on newspapers and magazine advertising costs has been steadily decreasing; this links to the fact that spending by New Zealanders on this type of advertising is now the least of all types. So businesses think that spending in this area would not be worth-while.

Accept other valid non-trivial comments. | • Comments on one feature of spending on products AND advertising. | • Comments on one different product.

AND

Predicts the future of the spending on products OR advertising.

AND

Explains how this decision was reached, using information from the resources. | • Comments on two different products.

AND

Predicts the future of BOTH the spending on products and advertising.

AND

Clearly makes links to the evidence in the resources.

AND

Recognises that businesses will spend their advertising budget where they are likely to get the best returns. |

NØ	N1	N2	A3	A4	M5	M6	E7	E8
No response; no relevant evidence.	ONE question attempted towards solution.	1u	2u	3u	1r	2r	t1	t2

Q	Evidence	Achievement	Merit	Excellence
TWO (a)	We can see that the median of commercial posts is 295 views; this is greater than the upper quartile of self-made posts that is 253 views. Therefore, we can conclude that commercial posts have more views than self-made posts.	• Correct conclusion with some evidence from graph.	• Correct conclusion in context using the ½ ¾ rule and evidence from the graph.	
(b)	<table><tr><td></td><td>Video</td><td>Photos</td><td>Total</td></tr><tr><td>*Panorama*</td><td>$10.50</td><td>$27</td><td>$37.50</td></tr><tr><td>*GoGo*</td><td>$7.88</td><td>$30.50</td><td>$38.38</td></tr><tr><td>*Pulse Point*</td><td>$14.35</td><td>$24.50</td><td>$38.85</td></tr></table> *Panorama Media Advertising* with discount: $37.50 \times 0.85 = 31.88$ *Pulse Point Media* with deal: $38.85 - 9.80 = 29.05$ Therefore, based on this I would go with *Pulse Point Media*, as that is the cheapest at $29.05. However, *GoGo Media* will upload the video to their social media for free, which, in the long term, might save Kaia money as this normally costs $114.	• Correctly calculates the cost of at least one of the three companies.	• Correctly calculates the cost of *Panorama Media Advertising*, including the discount. AND *Pulse Point Media*, including the deal. AND Statement comparing both.	• Correctly calculates the cost of ALL advertising companies. AND Correct conclusion of which advertising company to use with discussion. AND Comment about Kaia saving money in long run with *GoGo Media*.
(c)	The median amount of views on a commercial post is 295, so I will use this amount to calculate the profit of taking the social media deal using this number. <table><tr><td></td><td>Cost</td><td>$ per view</td><td>Total</td></tr><tr><td>*Panorama Media Advertising*</td><td>77</td><td>$0.65 \times 295 = 191.75$</td><td>$191.75 - 77 = 114.75$</td></tr><tr><td>*GoGo Media*</td><td>114</td><td>$0.75 \times 295 = 221.25$</td><td>$221.25 - 114 = 107.25$</td></tr><tr><td>*Pulse Point Media*</td><td>90</td><td>$0.58 \times 295 = 171.10$</td><td>$171.10 - 90 = 81.10$</td></tr></table> Free view the median is 183 so we will use this to work out the profit. <table><tr><td>*Panorama Media Advertising*</td><td>0.65×183</td><td>118.95</td></tr><tr><td>*GoGo Media*</td><td>0.75×183</td><td>137.25</td></tr><tr><td>*Pulse Point Media*</td><td>0.58×183</td><td>106.14</td></tr></table> We also need to consider the deal that *GoGo Media* will upload it for free, so that means that *GoGo Media* will be a profit of $171.10, which makes this the best company to go with.	• Correctly identifies and comments on the median value being the typical amount of views. OR Correctly calculates an amount Kaia will make for each advertising company.	• Correctly calculates an amount Kaia will make for each advertising company using the median value.	• Correctly calculates an amount Kaia will make for each advertising company using the median value. AND Compares it with the possibility of not taking the social media package. AND Considers *GoGo Media*'s deal to make final conclusion.

(d)	Candidate expresses concern the figure is reliable. We are only using a sample for a month of views; this might vary month to month so could increase or decrease the profit. We have only used Facebook views; the companies describe their uploading to 'social media'. Social media could include TikTok or Instagram, which would increase the number of views. *Accept any valid reasoning linked to the context.*	• Generic reasoning for being careful, such as it being only a sample.	• Has explained why care is needed in context.	• Evaluates the reservations using the information provided in context. AND Makes reference to the limitations of the data.

NOTE:

In the real NCEA assessment, November 2025, there will actually be three questions in the 90 minute assessment.

For each Question:

NØ	N1	N2	A3	A4	M5	M6	E7	E8
No response; no relevant evidence.	ONE partial solution.	1u	2u	3u	1r	2r	1t	2t