91946



# Level 1 Mathematics and Statistics 2025

### 91946 Interpret and apply mathematical and statistical information in context

Credits: Five

## SAMPLE ASSESSMENT

Achievement	Achievement with Merit	Achievement with Excellence
Interpret and apply mathematical and statistical information in context.	Interpret and apply mathematical and statistical information in context using relational thinking.	Interpret and apply mathematical and statistical information in context using extended abstract thinking.

This sample assessment contains two questions. The actual assessment will contain three questions.

#### **QUESTION ONE**

Refer to Figures 1(a) and 1(b) in the resource booklet to answer these questions.

(a) Using Figure 1(a), approximately how much more was spent on advertising on television compared to that for advertising on the radio in 2022?

Provide evidence from the graph to justify your answer.

(b) Using Figure 1(b), **describe** what you notice about spending on these different products in New Zealand in 2024.

Provide evidence from the graph to justify your answer, giving at least two different supporting statements.

- (c) Using Figure 1(a), **compare and contrast** the amount of spending for the different types of advertising.

Clearly identify any significant features in the graph.

Discuss any trends, repeating patterns, and unusual features that you notice in the graph.

Provide evidence from the graph to back up your statements.

Justify and evaluate your answer using statistical reasons, giving at least three different supporting statements.

(d) An internet article says that advertising is helping businesses to increase their sales.

Using both Figures 1(a) and 1(b), discuss how businesses could use this information to decide where to spend their advertising money.

Provide evidence from both graphs to justify your answer, giving at least three different supporting comments.

You should include a justified prediction of what you might believe will happen in the future.

### **QUESTION TWO**

Refer to Figure 2 and Table 2 in the resource booklet to answer these questions.

(a) Using Figure 2, compare the number of views of the posts of businesses that used 'commercial' advertisements with those businesses who use 'self-made' advertisements.

Use statistical reasons and numerical evidence from Figure 2 to support your answer.

(b) Kaia has started a new business selling jewellery online.

She wants to advertise her business, and she has decided that she will pay a company to help her. She will choose between the three companies, shown in Table 2, to handle the advertising for her.

Using Table 2, compare the costs of the three advertising companies, and make a recommendation if Kaia wants to make an advertisement that has a video of length 3.5 minutes and also include five photos.

Justify your decision, including evidence from Table 2.

(c) Using Figure 2 and Table 2, compare the costs and profit per customer of these three companies, and make a recommendation to Kaia about which social media advertising package she should choose.

Justify your decisions including evidence from Figure 2 and Table 2.

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- (d) What reservations should Kaia have when using Figure 2 to guide her advertising decisions? Justify your answer using statistical reasons.

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