Queensland Government | QCAA Queensland Curriculum & Assessment Authority

Queensland Curriculum and Assessment Authority

Numeracy 2025 v1.2

IA option B: Sample assessment instrument

This sample has been compiled by the QCAA to assist and support teachers in planning and developing assessment instruments for individual school settings.

Student name	sample only
Student number	sample only
Teacher	sample only
Exam date	sample only

Marking summary

Criterion	Marks allocated	Provisional marks
Numeracy	25	
Overall	**25**	

260578578

Conditions

Technique	Examination — short response
Topic/s	Topic 1: Personal identity and community
Time	45 minutes + 5 minutes perusal
Seen / Unseen	Unseen
Other	Only the QCAA formula book must be provided Notes are permitted.

Instructions

- Show all working in the space provided.
- Write all answers using black or blue pen or pencil.

Question 1 (7 marks)

Sloane is planning a weeklong trip to Hervey Bay. The table shows the weather forecast for the week.

Day	Weather Conditions	Minimum Temperature	Maximum Temperature
Sunday		17 °C	30 °C
Monday		16 °C	29 °C
Tuesday		17 °C	30 °C
Wednesday		17 °C	35 °C
Thursday		20 °C	30 °C
Friday		20 °C	34 °C
Saturday		20 °C	35 °C

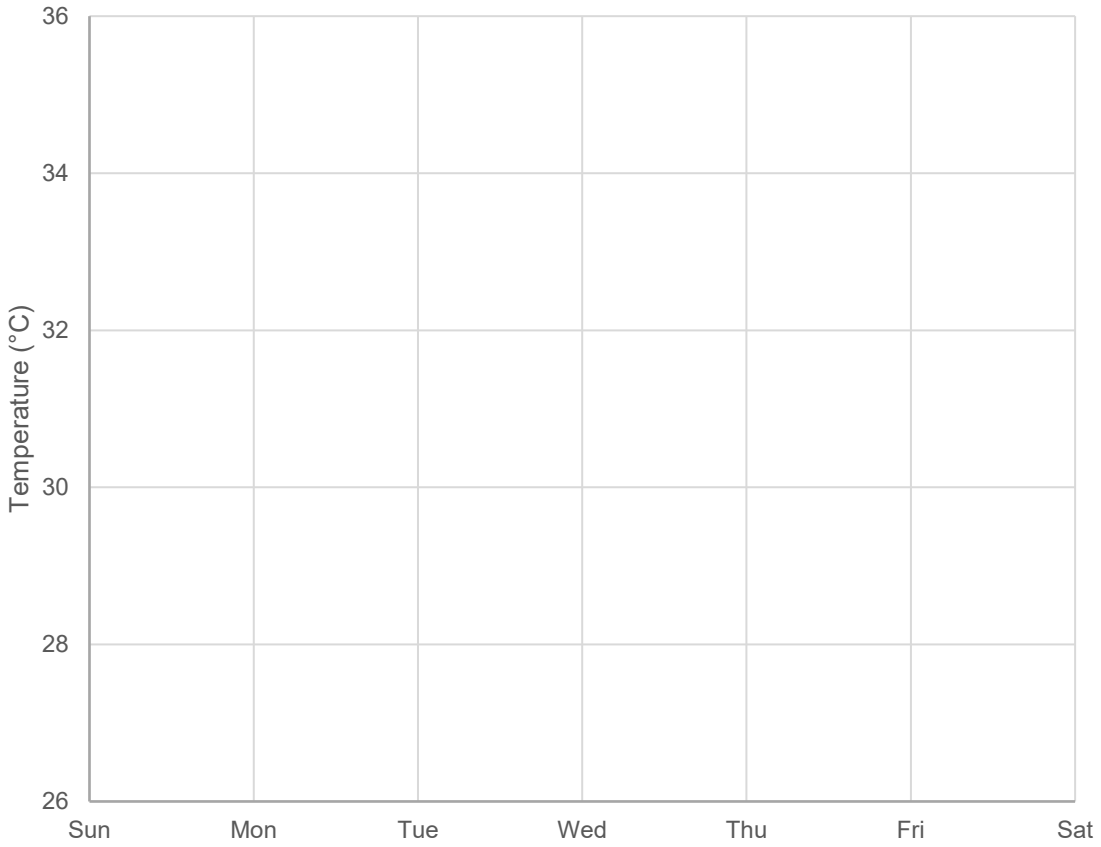
a. Describe the likelihood of it raining during the week. [1 mark]

b. Identify the most likely weather during the week. [1 mark]

c. Determine the probability of the most likely weather as a decimal. [2 marks]

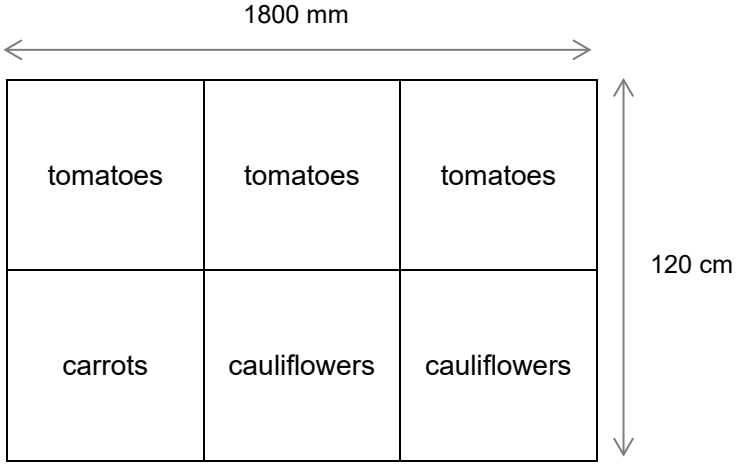
d. Which day has the largest difference in temperature? [1 mark]

e. Draw a line graph of the maximum temperatures for the week. [2 marks]



Question 2 (10 marks)

Lenny's garden design shows sections for tomatoes, carrots and cauliflowers. All sections are the same size.



Each tomato section will require 2 seedlings.

a. What is the total cost for the tomato seedlings if each seedling costs $6.00

[2 marks]

b. How much change would Lenny receive if he paid for the tomato seedlings using a $50 note? [1 mark]

c. Calculate the total area of the garden in square metres. [4 marks]

Garden length in metres: _____

Garden width in metres: _____

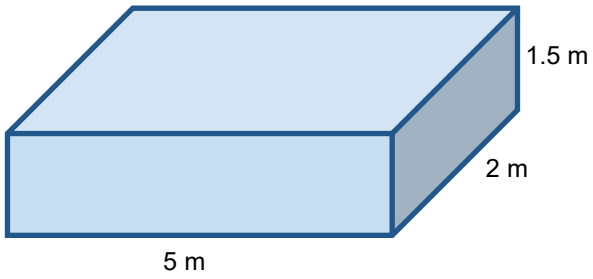
d. What fraction of the garden will be used for carrots. [1 mark]

e. Calculate the percentage of the garden that will be used for tomatoes. [2 marks]

Question 3 (8 marks)

A family has a saltwater pool in the shape of a rectangular prism as shown.

Not to scale.



a. Calculate the area of the pool base in square metres (m^2). [2 marks]

b. Calculate the volume of the pool in cubic metres (m^3). [2 marks]

To convert volume to capacity, use 1 m^3 = 1000 L.

c. Use your answer from 3b to convert the volume of the pool (m^3) to the capacity (L). [1 mark]

This table shows how much salt (kilograms) is required for 15 000 L and 30 000 L pools.

	Pool Volume (Litres)	
(PPM)	**15 000**	**30 000**
2500	20 kg	40 kg
3000	25 kg	50 kg
3500	30 kg	60 kg
4000	35 kg	70 kg

d. Using your answer from 3c and the table above, determine how many kilograms of salt is required to attain a salt level of 3500 PPM. [1 mark]

One bag of salt weighs 15 kg and costs $34.

e. Using your answer from 3d, determine the number of whole bags of salt required. [1 mark]

f. Using your answer from 3e, determine the cost of the salt. [1 mark]

Instrument-specific standards (Internal assessment Option B)

Numeracy	Cut-off	Grade
The student response has the following characteristics:		
• Identification and interpretation of comprehensive mathematical information. • Use and application of comprehensive mathematical knowledge. • Communication and representation of comprehensive mathematical knowledge.	> 80%	A
• Identification and interpretation of thorough mathematical information. • Appropriate use and application of thorough mathematical knowledge. • Appropriate communication and representation of thorough mathematical knowledge.	> 60%	B
• Identification and interpretation of mathematical information. • Use and application of mathematical knowledge. • Communication and representation of mathematical knowledge.	> 40%	C
• Identification and interpretation of partial mathematical information. • Use and application of partial mathematical knowledge. • Communication and representation of partial mathematical knowledge.	> 20%	D
The student response does not match any of the descriptors above.	≥ 0%	E