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Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Numeracy 2025 – Term 2

**32406 Use mathematics and statistics to meet
the numeracy demands of a range of
everyday situations**

EXEMPLARS

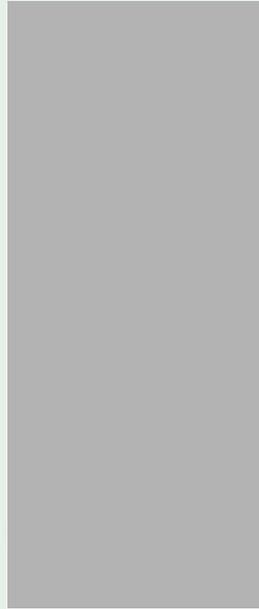
**Sample exemplars of acceptable candidate responses
to Outcome 3 questions**

Outcome 3 Exemplar Responses Term 2, 2025 – Week 1

Question 1a

Mum will be on crutches for three weeks.

She says, "Three weeks is about 30,000 minutes".



(a) Is she right? Use time calculations to explain your answer.

Type your answer in the box:

B *I* U \equiv ∇ \equiv ∇ \leftarrow \rightarrow ? ABC ∇

$60 \times 24 \times 7 \times 3 = 30240$ she was right it is about 30 000 minutes.

Annotation: *Achieved*, as the student takes an agree position and supports that position by a correct calculation.

AND:

Type your answer in the box:

B *I* U \equiv ∇ \equiv ∇ \leftarrow \rightarrow ? ABC ∇

No, she is not right, the answer is 30,240 minutes but if she rounded then she would be correct because 30,240 rounded to the nearest thousand is 30,000.

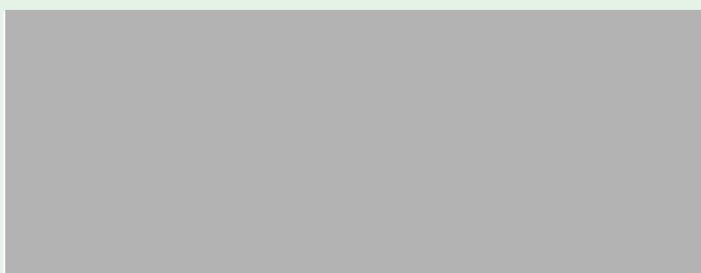
Annotation: *Achieved*, as the student takes an agree position and supports that position by an assumed correct calculation.

Question 2a

Jackets come in different sizes.

Size	Chest (cm)	Waist (cm)	Sleeve (cm)
X-Small	86–88	71–73	81–83
Small	89–95	74–76	84–85
Medium	96–105	77–84	86–88
Large	106–111	85–94	89–90
X-Large	112–122	95–101	91–93

Jack's arm (sleeve length) measures 91 cm, and his chest measures 110 cm.



Jack thinks that a size 'Large' will be the best jacket size to buy.

(a) Do you agree? Use measurements from the table to explain your answer.

Type your answer in the box:

B *I* U

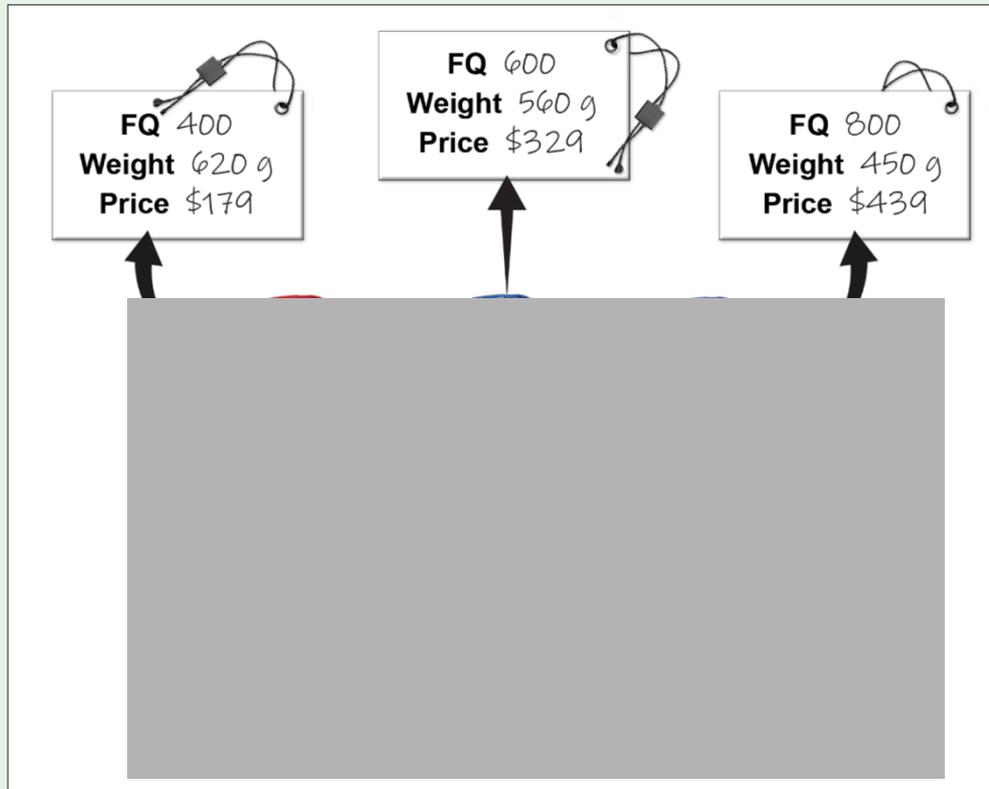
Yes, I agree because he can either choose from a large or an extra-large and the extra-large chest size is 112 – 122 which is a lot larger than 110. If he gets a large than his chest will be the right size and the sleeve size might be a little tight because its 89 – 90 and his sleeve size is 91.

Annotation: *Achieved*, as the student takes a position and supports that position using measurements about Jack and from the table.

Question 2d

A jacket keeps you warmer if it has a higher fill quality (FQ).

Here are the FQs, weights, and prices of three jackets.



(d) Is it true to say “Jackets with high FQ cost more, but weigh less, than low-FQ jackets”?

Use numbers from any two jacket tags to explain your answer.

Type your answer in the box:

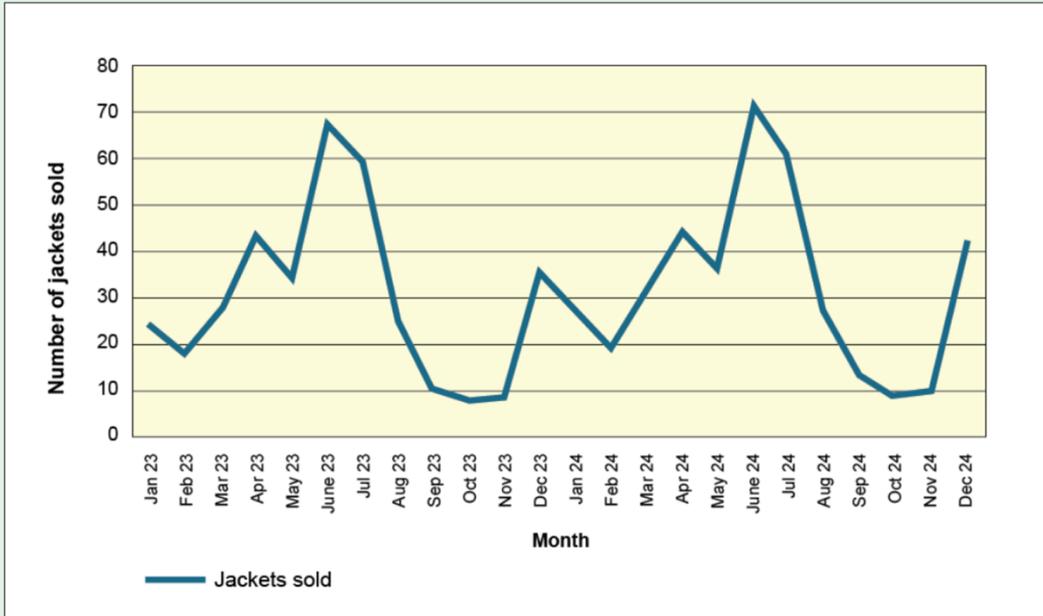
B *I* U

Yes, it is true because the red jacket's FQ is 400, weight is 620 g and costs \$179, but the blue jacket has a higher FQ of 800, lower weight of 450 g and the cost is \$439, which is higher.

Annotation: *Achieved*, as the student takes an agree position and supports that position by a correct. The student uses correct information to compare two jackets by FQ, weight and price.

Question 2f

The graph below shows how many jackets are sold at a shop during 2023 and 2024.



Note: June, July, and August are the coldest months. December, January, and February are the hottest months.

“More jackets are sold when the weather is cold than when it is hot.”

(f) Do you agree? Use information from the graph to explain your answer.

Type your answer in the box:

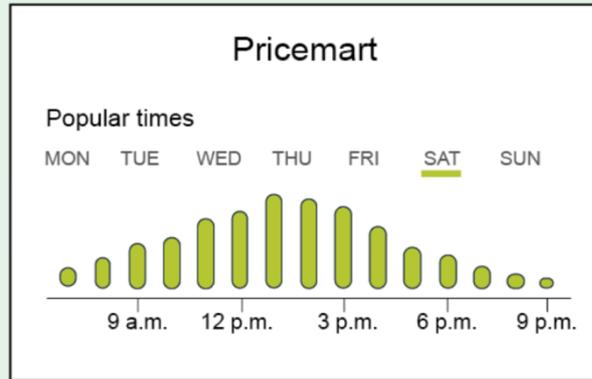
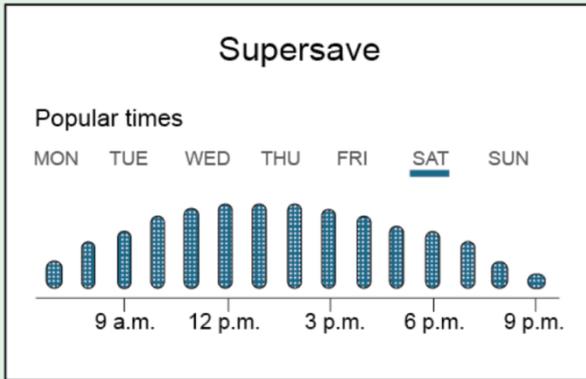
B *I* U

This statement is true because in June of 2023 the jacket sales peaked to around 68, and in October of 2023 the jacket sales dropped to around 8. This is the same for 2024, as the sales in June peaked to around 73, whilst sales in October dropped to around 8. This shows that more jackets are sold when it's cold because June, July and August are the coldest months.

Annotation: *Achieved*, as the student takes a position, notes a seasonal trend, and supports that position with specific months and sales volumes from the graph.

Question 3a

You want to shop on a Saturday any time after 12 p.m. You like a supermarket with lots of people in it, because you think the service is faster.



(a) Which supermarket should you choose, Supersave or Pricemart, and what time should you go?

Use information from the graphs to explain your answer.

Type your answer in the box:

B *I* U

You should choose Pricemart as at 1 pm the people spike while in Supersave the people stay about the same through 12 – 2 pm. Seeing as you like a lot of people in supermarkets you should choose the one with the highest spike after 12 seeing as you also want to go after that time.

Annotation: *Achieved*, as the student recommends a supermarket and time period. They support their position by comparing the number of people (bar heights) of each supermarket.

AND:

Type your answer in the box:

B *I* U

It will be at 1:00 p.m. at Pricemart. It's because, according to the data, Pricemart has more people than Supersave because at 1:00 p.m. on there just stays the same as 12 pm.

Annotation: *Achieved*, as the student recommends a supermarket and time period. They support their position by comparing the number of people (bar heights) of each supermarket.

Question 4e

The table below shows how much an artist gets paid each time someone streams their song. There are seven different streaming platforms.



Platform	Pay per Stream
Pandora	\$0.00133
Spotify	\$0.00318
Amazon Music	\$0.00402
Deezer	\$0.0014
YouTube Music	\$0.002
Apple Music	\$0.0081
Tidal	\$0.013

“Amazon Music gives artists the best deal.”

(e) Do you agree? Use numbers from the table to explain your answer.

Type your answer in the box:

B *I* U

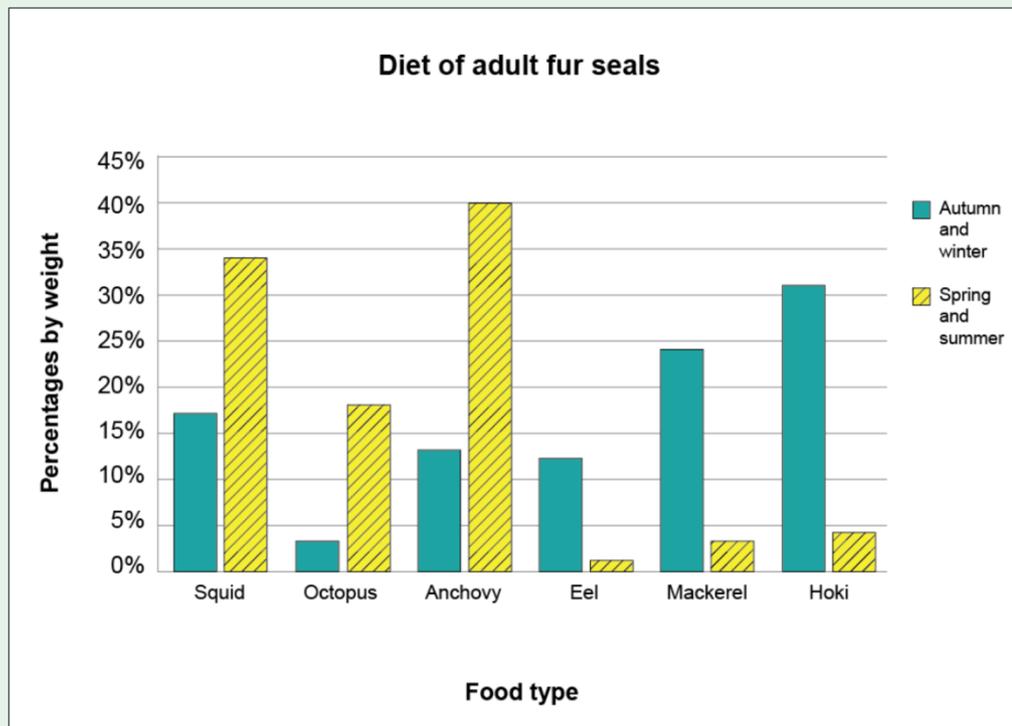
No, because Amazon music pays \$0.00402 per stream and Tidal pays \$0.013 per stream, so saying that Amazon Music gives artists the best deal is untrue because Tidal gives artists the best deal. The difference between them is \$0.00898.

Annotation: Achieved, as the student takes the correct position and shows evidence of correctly ordering decimals by place value. They correctly describe Tidal as giving the most money per download.

Question 5e

This graph shows what kind of food seals eat at different times of the year.

The different coloured bars show different halves of the year.



“In spring and summer, seals eat mostly squid, octopus, and anchovy.”

(e) Do you agree? Use percentages from the graph to explain your answer.

Type your answer in the box:

B *I* U

Yes, I agree that in spring and summer, seals eat mostly squid, octopus and anchovy. The graph shows that in spring and summer the percentages of squid, octopus and anchovy are 40%, 34% and 17% while the other types of food in spring and summer are all below 5%.

Annotation: *Achieved*, as the student takes the correct position and uses percentages from the graph to justify their position.

Outcome 3 Exemplar Responses Term 2, 2025 – Week 2

Question 1a

Mum will be on crutches for four weeks.

She says, “Four weeks is about 40,000 minutes”.



(a) Is she right? Use time calculations to explain your answer.

Type your answer in the box:

B *I* U \equiv ∇ \equiv ∇ \leftarrow \rightarrow ABC ∇

Yes, she is right, through my calculations I gathered that week 1 was equal to 10,080 minutes which I just timed by 4 to get 40,320, which is roughly near to 40,000.

Annotation: *Achieved*, as the student takes a position and correct calculations are used to support that position.

AND:

Type your answer in the box:

B *I* U \equiv ∇ \equiv ∇ \leftarrow \rightarrow ABC ∇

She is correct, the reason being is that there is 1440 minutes in one day, and in four weeks there is 28 days, so $1440 \times 28 = 40,320$ which is roughly 40,000.

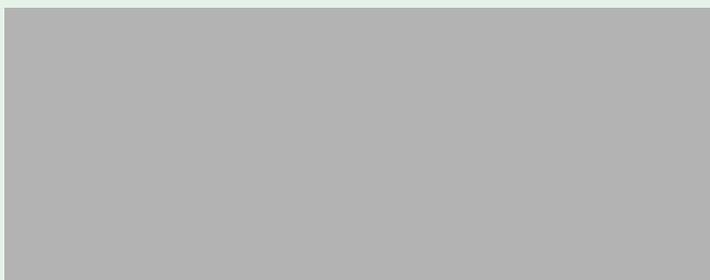
Annotation: *Achieved*, as the student takes a position and correct calculations are used to support that position.

Question 2a

Jackets come in different sizes.

Size	Chest (cm)	Waist (cm)	Sleeve (cm)
X-Small	86–88	71–73	81–83
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Jack's arm (sleeve length) measures 88 cm, and his chest measures 110 cm.



Jack thinks that a size 'Large' will be the best jacket size to buy.

(a) Do you agree? Use measurements from the table to explain your answer.

Type your answer in the box:

B *I* U

106 – 111 chest and 89 – 90 for the sleeve.

Yes, I think the large one would be the best one for him because it is not much of a difference to his measurements.

Annotation: *Achieved*, as the student takes a reasonable position, correctly reads the measurement ranges and relates the ranges to Jack's measurements.

Question 3d

A 1-kilogram block of cheese costs \$13.79, a 500-gram block of the same cheese costs \$8.19, and a 250-gram block of the same cheese costs \$6.19.



(d) Is the 500-gram block of cheese the cheapest per 100 grams? Use the weights and prices to explain your answer.

Type your answer in the box:

B I U

The 500 g block is not the cheapest. The 250 g block costs \$2.476 per 100 g ($\6.19 divided by $2.5 = \$2.476$). The 500 g block costs \$1.638 per 100 g ($\$8.19 / 5 = \1.638). The 1 kg (1000 g) block costs \$1.379 per 100 g. So, the 500 g block is not the cheapest, the 1 kg block is.

Annotation: *Achieved*, as the student chooses the correct position and clearly shows calculations of the each of the three cheese rates per 100 grams.

Question 4e

The table below shows how much an artist gets paid each time someone streams their song. There are seven different streaming platforms.



Platform	Pay per Stream
Pandora	\$0.00133
Spotify	\$0.00318
Amazon Music	\$0.00402
Deezer	\$0.0014
YouTube Music	\$0.002
Apple Music	\$0.0081
Tidal	\$0.013

“Tidal gives artists the best deal.”

(e) Do you agree? Use numbers from the table to explain your answer.

Type your answer in the box:

B *I* U      

Yes, I agree that Tidal has the best deals. Every other platform pays artists a value in the thousandths, while Tidal pays artists a value that is in the hundredths per stream.

Annotation: *Achieved*, as the student takes the correct position supported by correct reasoning of place value of decimals.

(Continued on next page ...)

AND:

Type your answer in the box:

B *I* U ☰ ▾ ☰ ▾ ↶ ↷ ☹️ ABC ▾

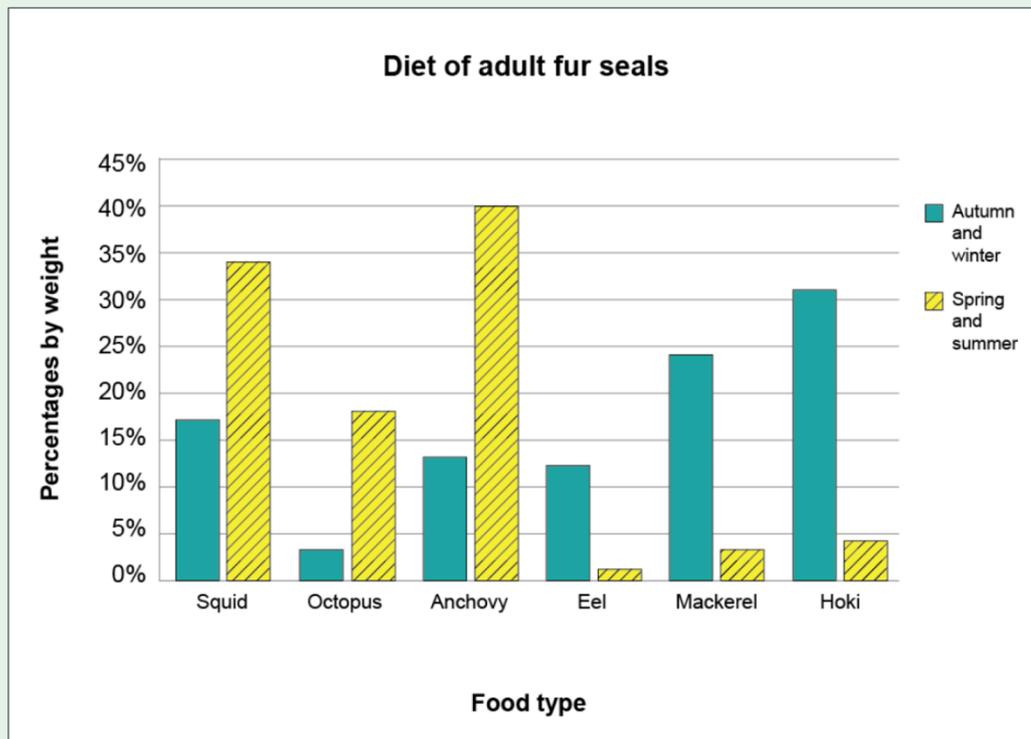
Yes, Tidal does give you the best deal as they pay the most with \$0.013 which is \$0.0049 more than the next highest which is Apple Music who pays \$0.008.

Annotation: *Achieved*, as the student takes the correct position supported by evidence of ordering decimals correctly.

Question 5e

This graph shows what kind of food seals eat at different times of the year.

The different coloured bars show different halves of the year.



“In autumn and winter, seals eat mostly squid, mackerel, and hoki.”

(e) Do you agree? Use percentages from the graph to explain your answer.

Type your answer in the box:

B *I* U

Yes, I agree because the majority of the diet of the fur seal in autumn and winter – the three highest ranks are hoki at about 31%, the mackerel which is around 24%, then squid which is around 17%. These three types of food are all higher in percentage by weight compared to anchovy, eel and octopus, with percentages of 13%, 12% and 3%, all of which are lower than the percentages of hoki, mackerel and squid, meaning that in autumn and winter seasons these are the most likely to be eaten by adult fur seals. So therefore I agree with the statement.

Annotation: *Achieved*, as the student takes the correct position and supports their position with correct percentages from the graph.