

Hei whakaoti mā te ākonga

Te Tau Ākonga ā-Motu | NSN

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Te Tau ā-Kura

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SUPERVISOR'S USE ONLY

Tirohia te uhi o muri e kitea ai te
whakapākehātanga o tēnei uhi

Tuhia he (X) ki te pouaka mēnā
kāore koe i tuhi kōrero ki tēnei puka

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32406M TE WĀHANGA 3



Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Te Whakamahinga Tātai, 2024

32406M Te whakahāngai i te pāngarau me te tauanga
i ngā tūāhua whānui o ia rā

Ngā whiwhinga: Tekau

NGĀ HUA	
1	Te whakatakoto i ētahi ara o te pāngarau me te tauanga hei whakaoti panga i ngā tūāhua whānui o ia rā.
2	Te whakamahi i te pāngarau me te tauanga kia ea ai te taha ki te whakamahinga tātai o roto i ngā tūāhua whānui o ia rā.
3	Te whakamārama i ngā urupare ā-pāngarau, ā-tauanga hoki ki ngā tūāhua.

Whakaurua tō Tau Ākonga ā-Motu (NSN) me te Tau ā-Kura ki te wāhi o runga i tēnei whārangi.

Me whakamātau koe i ngā tūmahi KATOA kei roto i tēnei pukapuka.

Mēnā ka hiahia whārangi atu anō koe mō ō tuhinga, whakamahia ngā whārangi wātea kei muri o tēnei pukapuka.

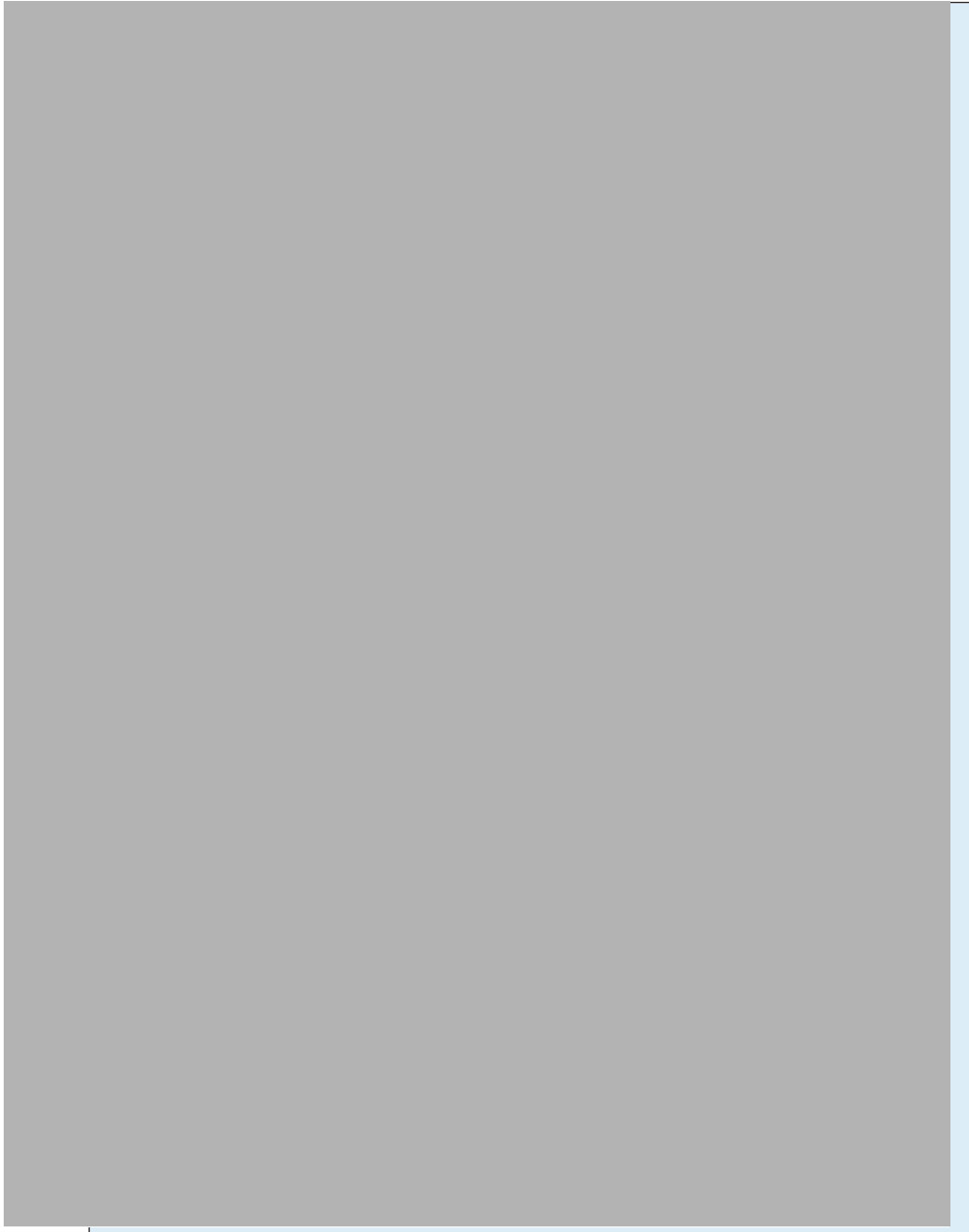
Tirohia kia kitea ai e tika ana te raupapatanga o ngā whārangi 2–43 kei roto i tēnei pukapuka, ka mutu, kāore tētahi o aua whārangi i te takoto kau.

Kaua e tuhi ki ngā paenga (///). Ka poroa taua wāhanga ka mākahia ana te pukapuka.

HOATU TĒNEI PUKAPUKA KI TE KAIWHAKAHAERE Ā TE MUTUNGA O TE WHAKAMĀTAUTAU.

TE TŪMAHI TUATAHI: Te honu

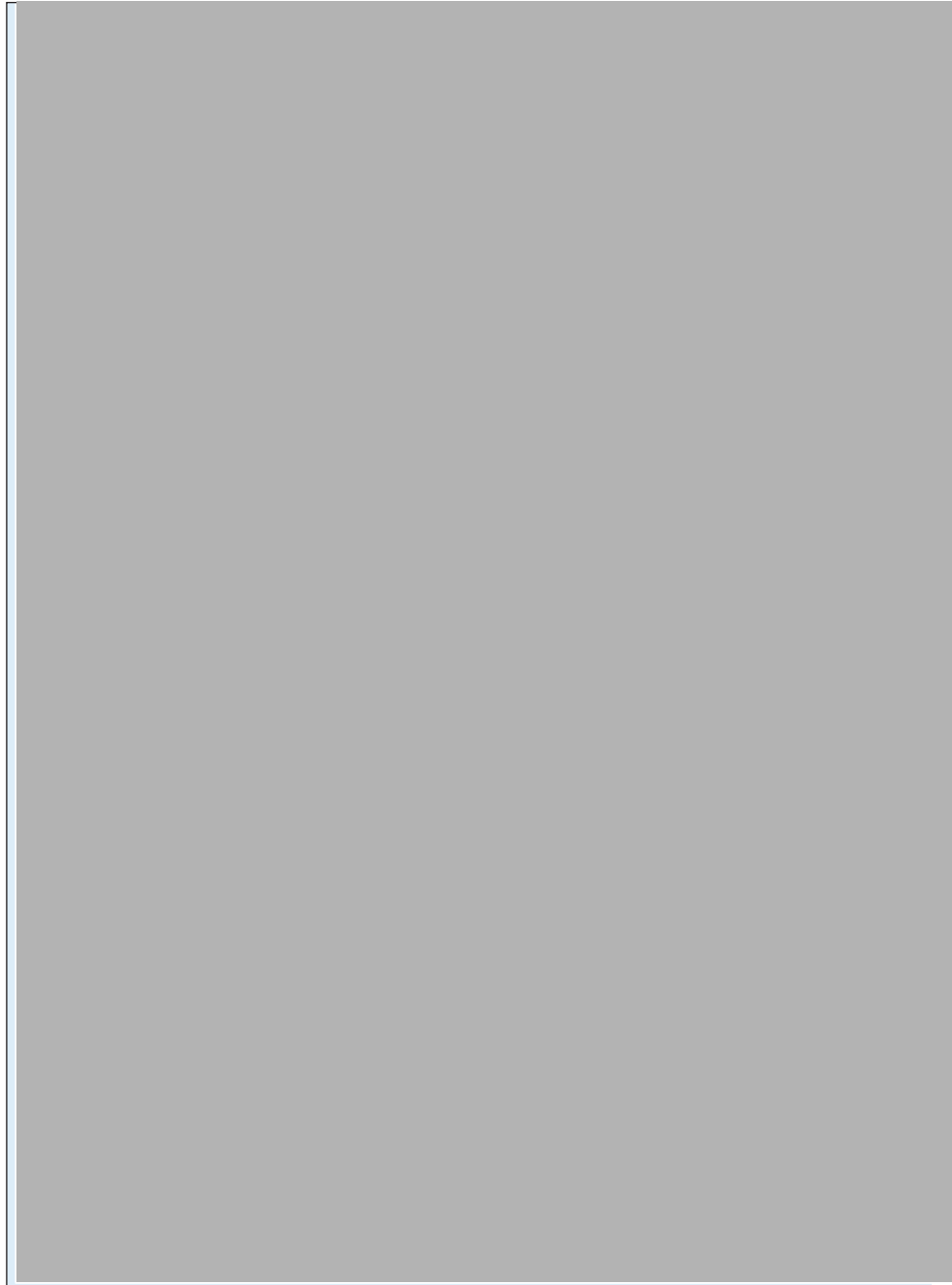
I ora ngā honu tuatahi i te takiwā o te 230 miriona tau ki muri.



- (a) I ora rānei ngā honu i te takiwā kotahi i ora ai ngā mokouki? Whakamahia ngā pārongo nō roto mai i te tūtohi hei whakamārama i tō whakautu.

QUESTION ONE: Turtles

The first turtles lived around 230 million years ago.



- (a) Did turtles live around the same time as dinosaurs? Use information from the chart to explain your answer.

Anei ētahi o ngā pae kei te upoko o tētahi huinga raraunga. 1000 ngā honu i te katoa o te tūtohi.

Te momo	Te ira	Te roa o te anga (cm)	Te taumaha (kg)
Kākāriki	He uwaha	87	108
Kōporo	He toa	76	89
Kākāriki	He toa	123	145
Ngutu kāhu	He uwaha	65	71
Ngutu kāhu	He uwaha	54	64
Kōporo	He toa	81	93

(b) Tuhia tētahi pātai e taea ana te whakautu mā te whakamahi i ngā pārongo i tēnei tūtohi.

Kotahi noa iho i te 100 punua honu ka ora ā kātua noa.

(c) Ko tēhea tau ā-ira e hāngai ana ki te tūponotanga o te kotahi i te 100?

Tīpakohia (✓) te whakautu e tika ana.

☐

1.0

☐

0.1

☐

0.01

☐

0.001

☐

0.0001

Here are the first few rows of a data set. There are 1000 turtles in the whole table.

Species	Gender	Shell length (cm)	Weight (kg)
Green	Female	87	108
Loggerhead	Male	76	89
Green	Male	123	145
Hawksbill	Female	65	71
Hawksbill	Female	54	64
Loggerhead	Male	81	93

(b) Write a question that could be answered using information from this table.

Only one in every 100 baby turtles survive to become adults.

(c) Which decimal is the probability of a one in 100 chance?
Tick (✓) the correct answer.

☐ 1.0

☐ 0.1

☐ 0.01

☐ 0.001

☐ 0.0001

Kei te whakaatuhia i tēnei kauwhata te maha me ngā momo honu ka kitea i Whītī i ngā kaupeka uanui me ngā kaupeka pakapaka.

Te maha me ngā momo honu ka kitea i Whītī

E whakamahia ana i tētahi niupepa i Whītī ngā tau nō te kaupeka pakapaka ki te whakatakoto i te kōrero:

“E 23 anake ngā honu Ngutu kāhu i kitea. Ka korehāhā pea tēnei momo i ngā wai o konei.”

- (d) Kei te whakaae rānei koe? Whakamahia ngā pārongo i te kauwhata hei whakamārama i tō whakautu.

Numbers and types of turtles found in Fiji

“Only 23 Hawksbill turtles were found. This species is at risk of extinction in our waters.”

Kua puta tēnei tauira i te tāruaruatanga o te āhua o te honu.

(e) Ko tēhea te tauira i te pouaka o raro e hāngai ana ki te tauira honu?

Porowhitangia  te whakautu e tika ana.

- (i)       
- (ii)       
- (iii)       
- (iv)       

HE PĀTOHU

-  te pane o te honu
-  te tinana o te honu

Me nui te wai i te kura o te honu.

I **ia mītarau** o te roa o te anga o te honu,
me 15 rita te wai i te kura.

(f) Me hia te nui o te wai i te kura o te
honu e tau ai tēnei honu?

_____ ngā rita

Te ine i te anga o tētahi honu.

This pattern is made using a repeating turtle figure.

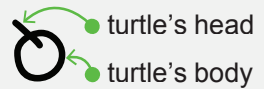


(e) Which pattern in the box below matches the turtle pattern?

Circle  the correct answer.

- (i)        
- (ii)        
- (iii)        
- (iv)        

KEY



Turtles need a lot of water in their tank.

For **every centimetre** of the turtle's shell length, the tank must hold 15 litres of water.

(f) How much water will this turtle need in its tank?

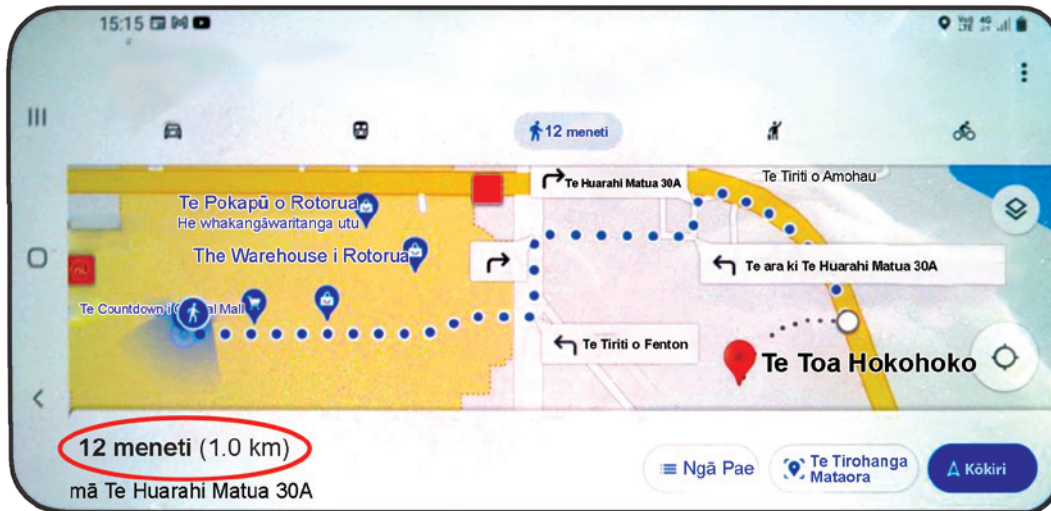
_____ litres



Measuring a turtle's shell.

TE TŪMAHI TUARUA: Ngā utu ngāwari i te toa hokohoko

Ko te toa hokohoko tētahi wāhi e hoko ai te tangata i ngā mea kua tukuruatia. Anei ngā tohutohu e tae atu ai te tangata ki tētahi toa hokohoko.



- (a) Mēnā ka pau te 12 meneti ki te hīkoi i te manomita kotahi, ka hia ngā manomita ka hīkoitia e koe i te kotahi haora?

_____ ngā manomita (km)

Anei te utu mō tētahi tarau tāngari i te toa hokohoko. I te wā e hou ana tēnei tarau tāngari, ka \$120 te utu.

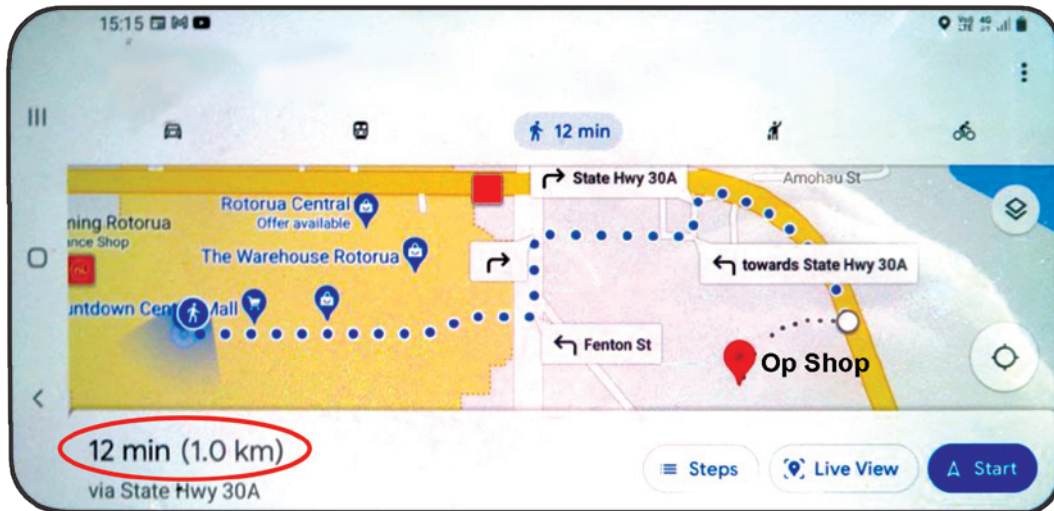


- (b) E hia te ōrau o te utu hou mō te tarau tāngari te utu i te toa hokohoko?

_____ %

QUESTION TWO: Bargains at the op shop

An op shop is a place where people buy things that are recycled. Here are directions to get to an op shop.



- (a) If walking one kilometre takes 12 minutes, how many kilometres can you walk in one hour?

_____ km

Here is the price of a pair of jeans at the op shop. These jeans are priced at \$120 when new.



- (b) What percentage of the new price for jeans, is the op shop price?

_____ %

Anei tētahi whakaahua o tētahi pereti.

(c) (i) He hangarite **whakaata** (mira)
tō te pereti katoa?

Tīpakohia (✓) te whakautu e tika ana.

Āe ☐ Kāo ☐

(ii) He hangarite **hurihanga** (huri)
tō te pereti katoa?

Tīpakohia (✓) te whakautu e tika ana.

Āe ☐ Kāo ☐

He moenga tāpara kei te toa hokohoko.

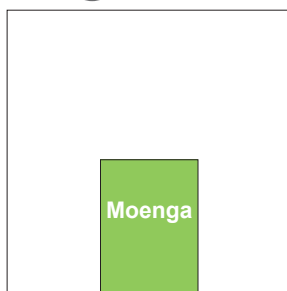
1.37 mita (m) te whānuitanga, ā, 1.88 mita (m)
te roa.

Ko te inenga o tētahi rūma moe, ko te
3.5 mita (m) × 3.5 mita (m).

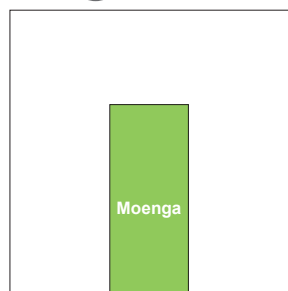
(d) Ko tēhea te hoahoa pai katoa hei whakaatu
i te āhua o te noho o te moenga tāpara i te
rūma moe?

Tīpakohia (✓) te whakautu e tika ana.

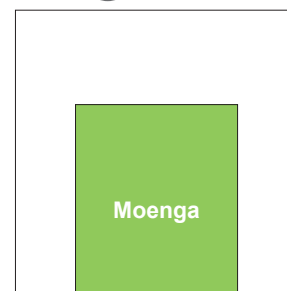
(i) ☐



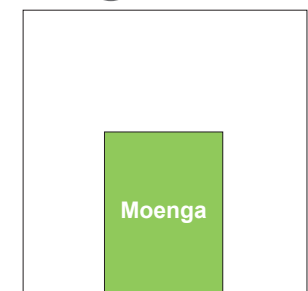
(ii) ☐



(iii) ☐



(iv) ☐



Here is an image of a plate.

- (c) (i) Does the whole plate have **reflectional** (mirror) symmetry?

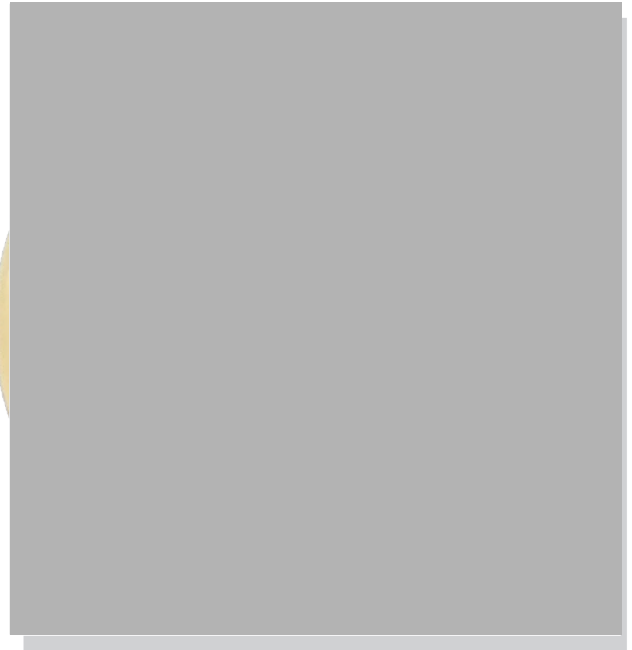
Tick (✓) the correct answer.

Yes ☐ No ☐

- (ii) Does the whole plate have **rotational** (turn) symmetry?

Tick (✓) the correct answer.

Yes ☐ No ☐



In the op shop, there is a double bed.

It measures 1.37 m across and 1.88 m long.

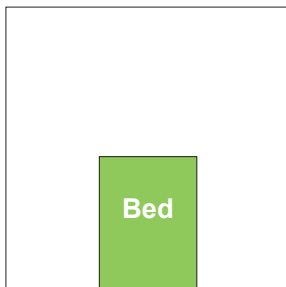
A bedroom measures 3.5 m × 3.5 m.

- (d) Which diagram best shows how the double bed will fit in the bedroom?

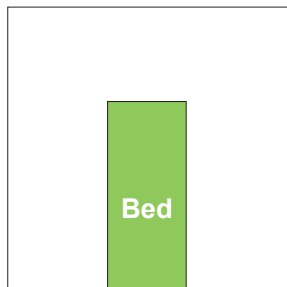
Tick (✓) the correct answer.



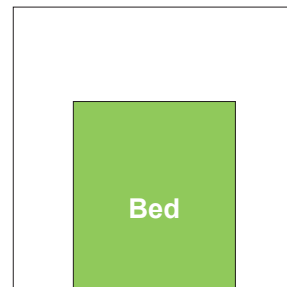
(i) ☐



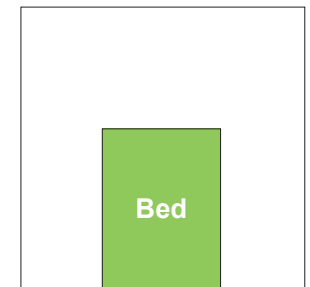
(ii) ☐



(iii) ☐



(iv) ☐



E 20 ngā kōata wai ka ō ki tēnei ipu.

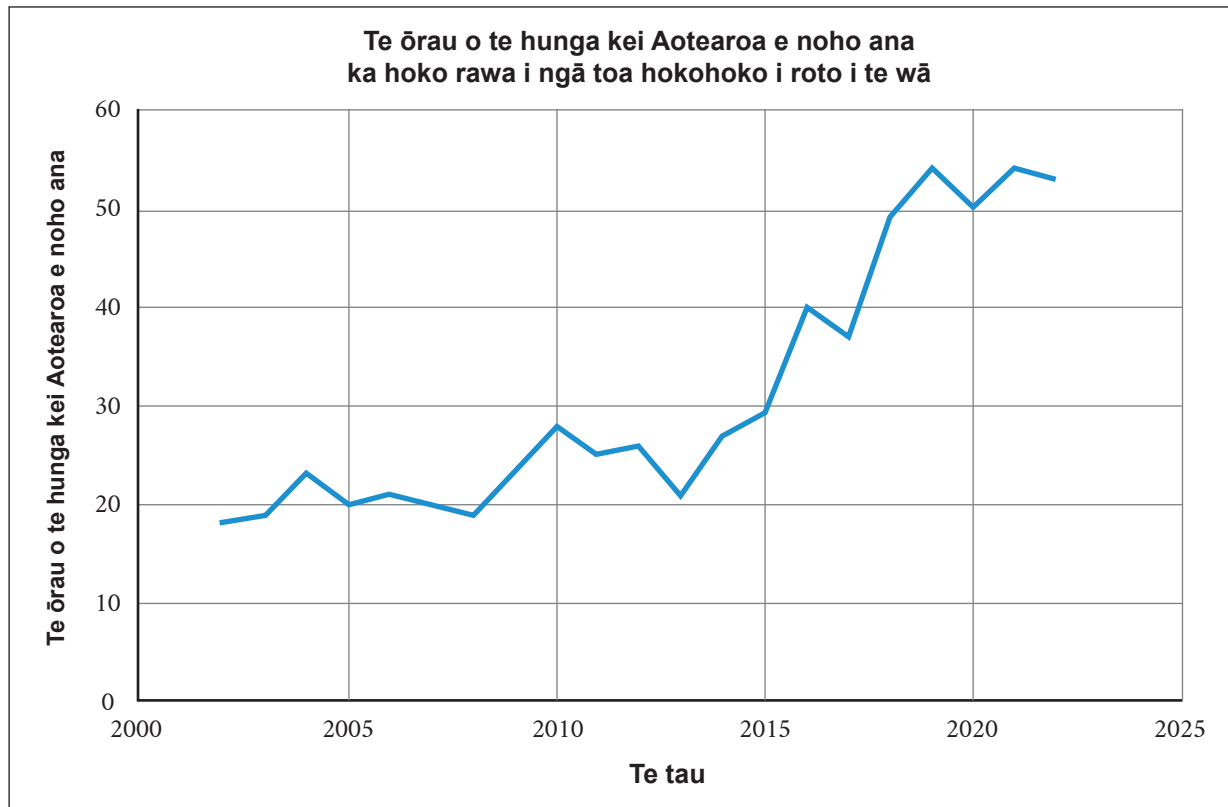
E 250 ngā ritamano (mL) te nui o te wai ka ō ki tētahi kōata.

(e) E hia **rita** ka ō ki tēnei ipu?

_____ ngā rita

E mea ana tētahi kaiwhakataki pouaka whakaata kua reatoru te pikinga o tā te hunga kei Aotearoa e noho ana hoko rawa i ngā toa hokohoko i te 20 tau i waenga i te 2002 me te 2022.

Kia mōhio mai: Ko te tikanga o te “reatoru”, ko te whakarea i te nui ki te toru.



(f) Kei te tika rānei tā te kaiwhakataki pouaka whakaata?

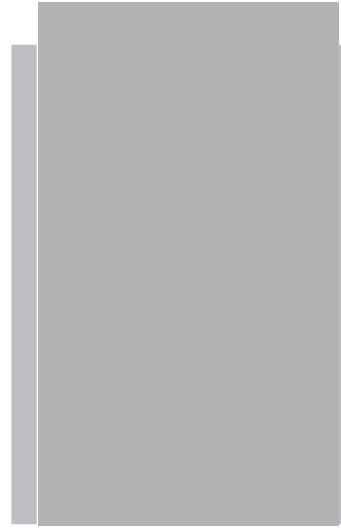
Whakamahia ngā pārongo i te kauwhata hei taunaki i tō whakaae, i tō whakahē rānei i tāna e kī nei.

This jar holds 20 glasses of water.

A glass holds 250 mL of water.

(e) How many **litres** of water does the jar hold?

_____ litres



A TV presenter claims the percentage of New Zealanders buying at op shops has trebled in the 20 years from 2002 to 2022.

Note: “Trebled” means three times as much.



(f) Is the TV presenter right?

Use information from the graph to say why you agree, or disagree, with their claim.

TE TŪMAHI TUATORU: Te kaimoana

Kei te pīrangi a Awa ki te kohikohi i tētahi o ngā kaimoana makue, i te pipi.

Ka taea e Awa te kohikohi te 60 pipi i te haora.

- (a) Ka pau te hia **haora** me te hia **meneti**, e eke ai te nui o ngā pipi ka kohia e Awa ki te 150 pipi?

_____ haora me te _____ meneti

Ko Awa e pupuriana i ngā pipi.

Anei tētahi tūtohi o ngā tai mō te Hatarei, te 7 o Oketopa me te tīmatanga o te Hanarei, te 8 o Oketopa.

- (b) Kei te pīrangi a Awa ki te kohikohi kaimoana i te **tai timu**. Ā te takiwā o tēhea wā o te Hanarei, te 8 o Oketopa ka pai tā Awa kohikohi kaimoana?

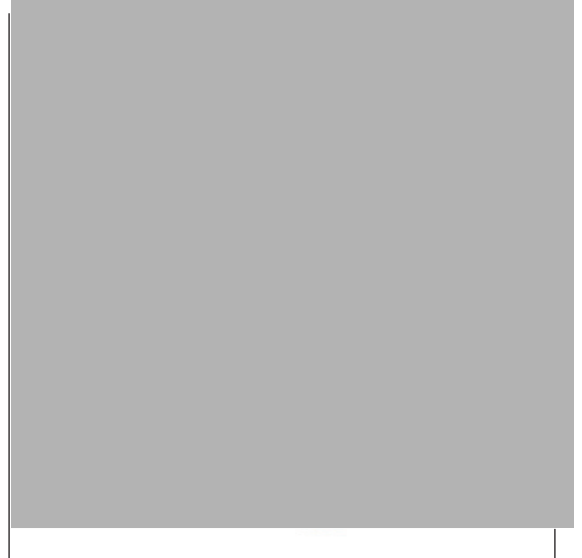
QUESTION THREE: Kaimoana (Seafood)

Awa wants to collect pipi, a tasty shellfish.

Awa can collect 60 pipi per hour.

- (a) How long, in **hours and minutes**, will it take Awa to collect 150 pipi?

_____ hours, and _____ minutes



Awa holding pipi.

Here is a tide chart for Saturday 7 October and the first part of Sunday 8 October.



- (b) Awa wants to collect seafood at **low tide**. About what time can Awa next collect seafood on Sunday 8 October?

Kei te pīrangi a Awa ki te whakamahi mōunu hei whakarite i tana hīnaki pāpaka.

E ai ki te koroua o Awa, ko te ranunga mōunu pai katoa, ko te $\frac{3}{8}$ ngū, ā, ko te toenga he heihei.

- (c) Mehemea 150 karamu (g) te nui o te ngū kei a Awa, kia hia ngā karamu heihei me whai a Awa?

_____ karamu (g)

E āhei ana tā te tangata hī ika pupuri i te tāmure mēnā kei tua tōna roa i te roa **mōkito**, o te 30 mitarau (cm) (ka inea i te V i tana hiku). Mēnā he poto iho i te 30 mitarau (cm,) me whakahoki ki te moana.



- (d) Ka whakaawhiwhia te roa o tēnei tāmure ki te 30 mitarau (cm). Me pupuri rānei e Awa te tāmure, me whakahoki rānei ki te moana? Whakamāramatia tō whakautu ki ētahi inenga.

Awa wants to set a crab trap using bait.

Awa's koro (grandfather) recommends using a bait mixture that is $\frac{3}{8}$ squid and the rest is chicken.

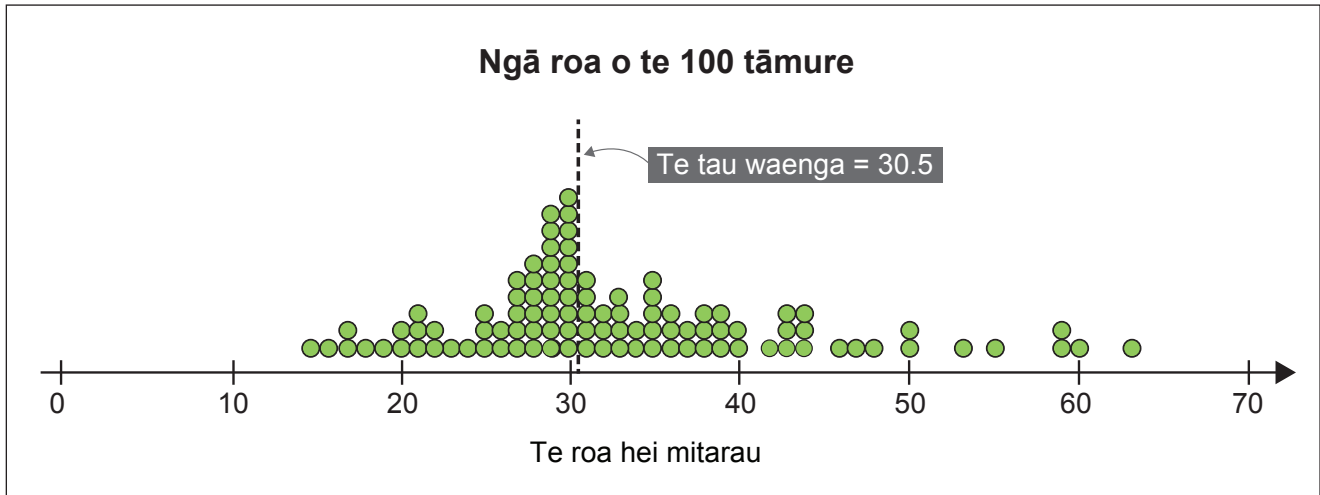
- (c) If Awa has 150 g of squid, how many grams of chicken does Awa need?

_____ g

People who catch fish can only keep a snapper if it has a **minimum** length of 30 cm (measured from the V in its tail). If it is shorter than 30 cm it must be put back into the sea.

- (d) The length of this snapper rounds up to 30 cm. Should Awa keep the snapper or put it back into the sea? Explain your answer using measurements.

Ka kite a Awa i tēnei kauwhata mō ngā roa o te 100 tāmure.



- (e) E whakapae ana a Awa, e hīia ai te rima tāmure hei whāngai i te whānau, me hī ia i te 10 tāmure ka whakahoki ai i te rima ki te moana. Kei te tika rānei tā Awa? Whakamahia ngā whakaaro mō te tūponotanga me ngā tau nō te kauwhata hei whakamārama i tō whakautu.

He poti tō Awa, ā, he pūkaha nekerua e iti ana tō te poti. Ko tōna kora, ko te ranunga o te penehīni me te hinu, ā, ko te 50:1 tōna ōwehenga (ko tōna 2% he hinu).

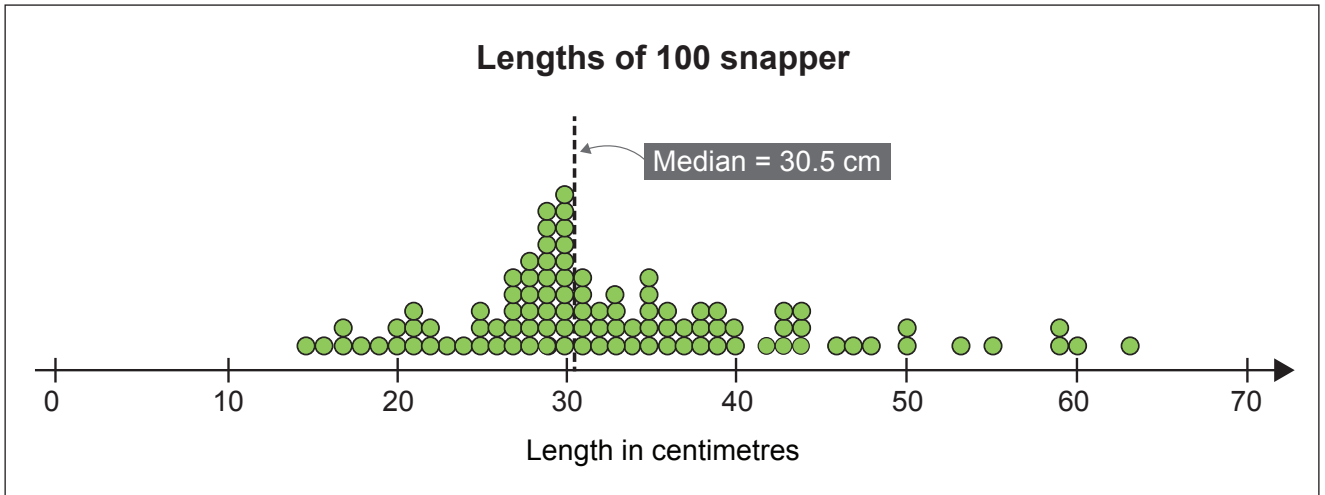
- (f) Mēnā kei a Awa te 10 rita o te penehīni, kia hia te nui o te hinu, hei **mitamano**, me āpiti e ia?

_____ ritamano (mL)



Te poti o Awa me tētahi pūkaha nekerua e iti ana.

Awa sees this graph about the lengths of 100 snapper.



- (e) Awa thinks that to catch five snapper to feed the whānau he will need to hook 10 snapper and put five of them back into the sea. Is Awa right? Use ideas about probability and numbers from the graph to explain your answer.

Awa has a boat with a small two-stroke motor. The fuel for the motor is petrol mixed with oil in a ratio of 50:1 (about 2% oil).

- (f) If Awa has 10 litres of petrol, how much oil, in **millilitres**, should he add?

_____ mL

Awa's boat with a small two-stroke motor.

TE TŪMAHI TUAWHĀ: Ngā akoranga hautū waka

Kei te ako a Deena ki te hautū waka.
E \$80 te utu mō tētahi akoranga, kotahi
haora nei te roa.

Mēnā ka uru a Deena ki ngā akoranga e
rima, ka 30% te hekenga utu.

- (a) Ka hia te utu mō ngā akoranga hautū
waka e rima i muri i te hekenga utu?

\$ _____

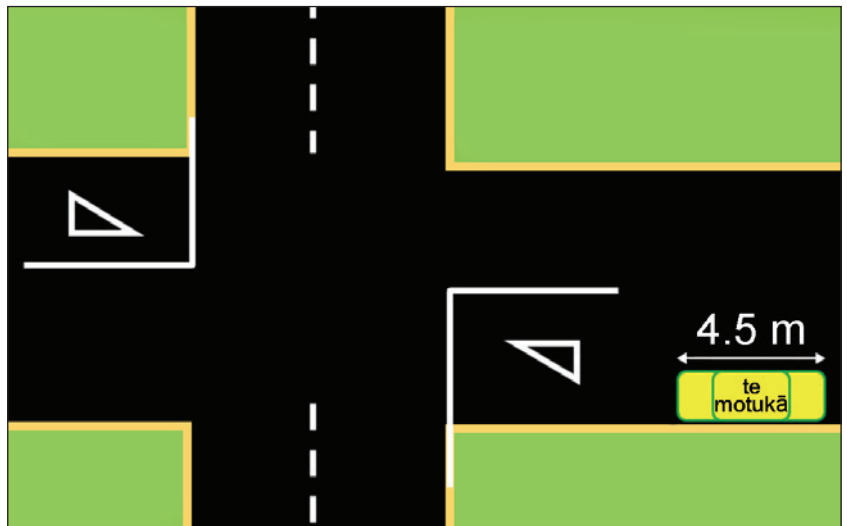


Ko Deena e ako ana ki te hautū waka.

E ai ki te ture, e tika ana te tūnga
o te motukā mēnā kua **ono**
mita, kua nui ake rānei tōna
tawhiti i te kokonga.

E mōhio ana a Deena e 4.5 mita
te roa o tana motukā.

Ka whakatū a Deena i tana
motukā i tētahi wāhi ka ōrite
tana tawhiti i te kokonga ki te
1½ o te roa o tana motukā.



- (b) Kei te tika te whakatūnga o
te motukā o Deena e ai ki ngā ture? Whakamāramatia tō whakautu ki ētahi inenga.

QUESTION FOUR: Driving lessons

Deena is learning to drive.

A one-hour driving lesson costs \$80.

If Deena takes five lessons, there is a 30% discount.

- (a) How much do five driving lessons cost, with the discount?

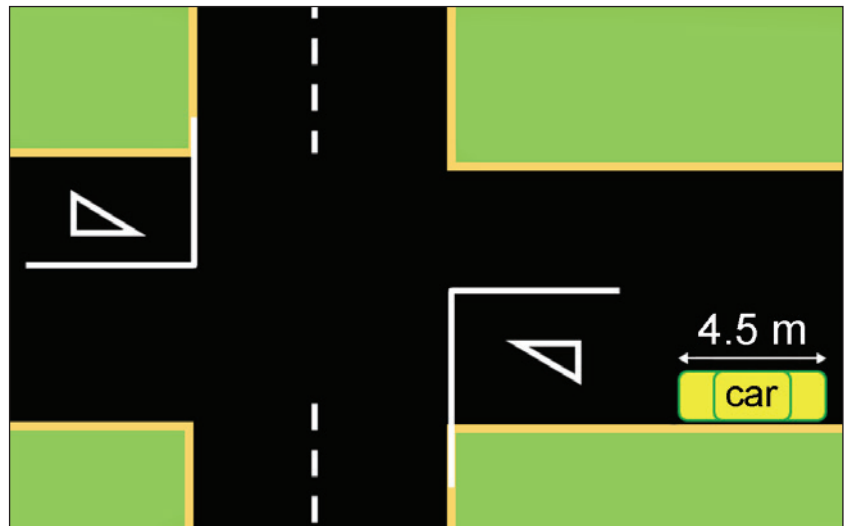
\$ _____

A car is parked legally if it is **six metres or more** from the corner.

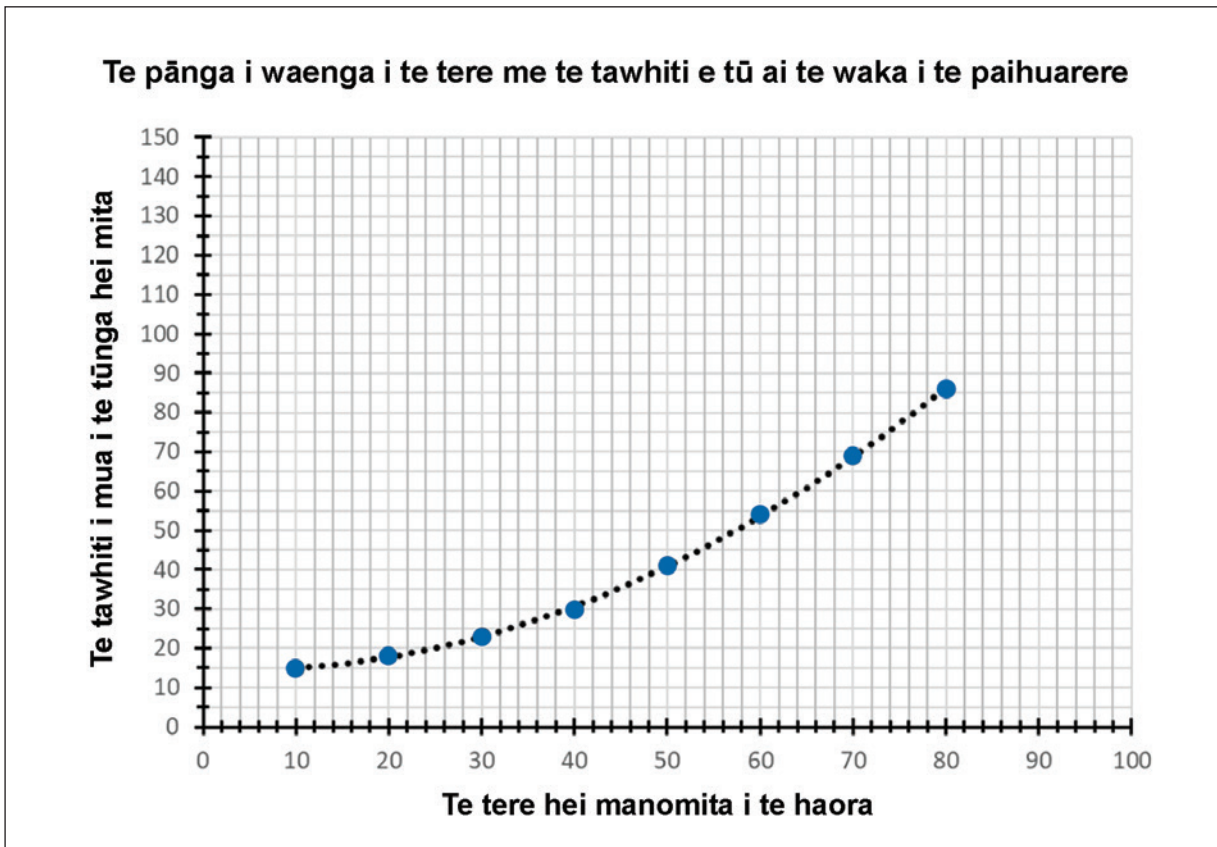
Deena knows her car is 4.5 metres long.

Deena parks **1½ car lengths** from the corner.

- (b) Is Deena's car parked legally? Explain your answer using measurements.



Kei te whakaatuhia i tēnei kauwhata te tawhiti e tū ai tētahi waka i ōna tere rerekē i te paihuarere.



Ko te 100 manomita i te haora te tere o te haere o te motukā o Deena.

(c) Ko tōna hia tawhiti ka haerehia i mua i te tūnga o tana motukā?

_____ mita (m)

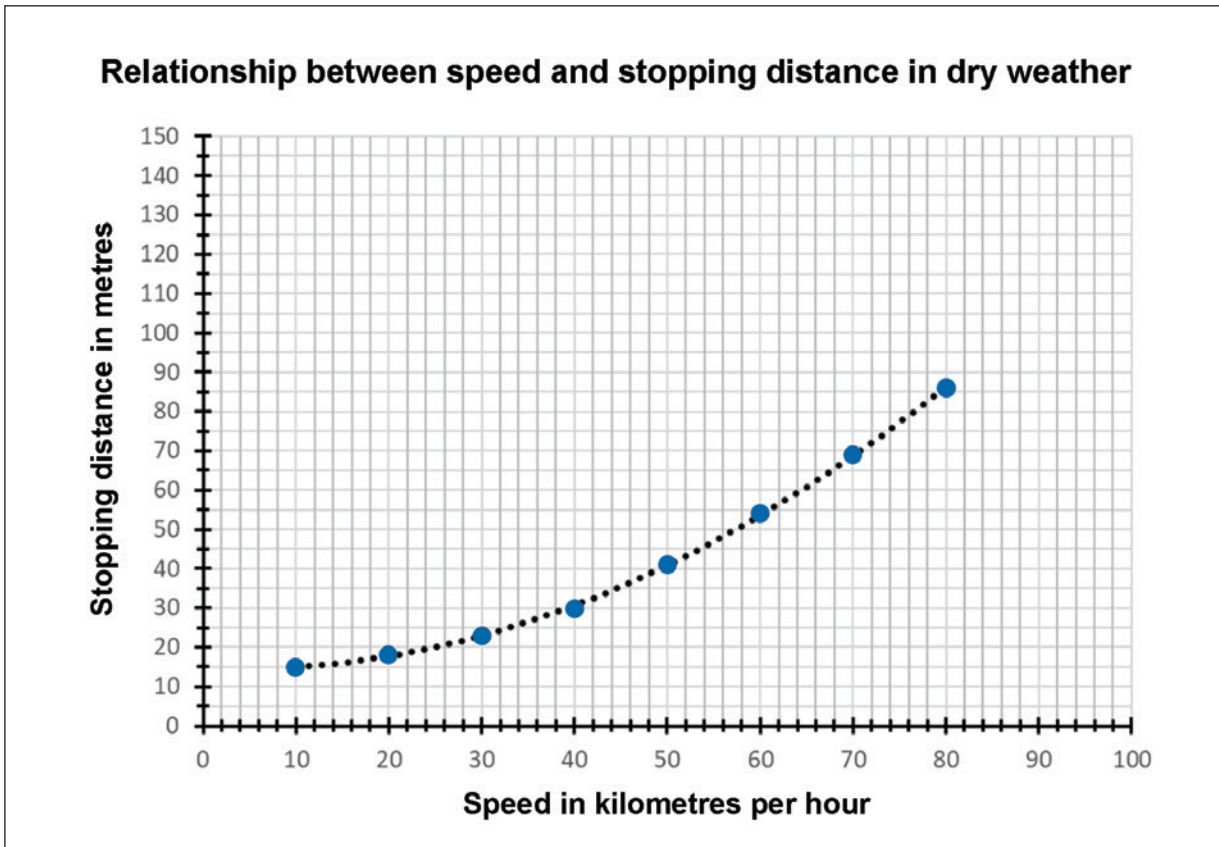
Ka tū ana a Deena i te teihana penehīni, ka pēnei te āhua o te ine hinu o tana motukā.

Kei te mōhio a Deena e 48 rita te nui o te penehīni i te kura i te wā e kī ana.

(d) Ko tōna hia rita o te penehīni hei hoko mā Deena e kī ai te kura penehīni?

_____ rita

This graph shows the distance that a car needs to stop at different speeds in dry weather.



Deena's car is moving at 100 kilometres per hour.

- (c) About how much distance will her car take to stop?

_____ m

When Deena stops at the fuel station, the gauge on her car looks like this.

Deena knows that the fuel tank holds 48 litres when it is full.

- (d) About how many litres of fuel does Deena need to buy to fill the tank?

_____ litres



Ka taraiwa atu a Deena i Ōtautahi i tana haere ki Ōtepoti.

Ka kite ia i tēnei tohu i waho tata o Ōtautahi.



- (e) Ka tae ana a Deena ki Te Oha a Maru, he āhua pēhea te nui o te hautanga o tana haerenga kua tutuki i a ia?

Tīpakohia (✓) te hautau e **pātata katoa** ana ki te whakautu e tika ana.

(i) $\frac{5}{10}$ ☐

(ii) $\frac{6}{10}$ ☐

(iii) $\frac{7}{10}$ ☐

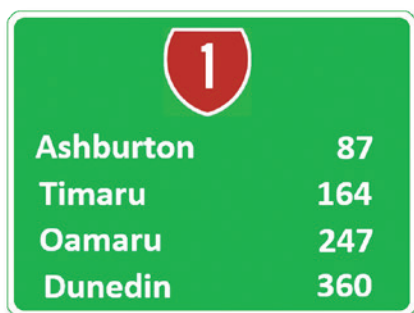
(iv) $\frac{8}{10}$ ☐

(v) $\frac{9}{10}$ ☐

Deena drives out of Christchurch on her way to Dunedin.



She sees this road sign, just out of Christchurch.



(e) When Deena reaches Oamaru, about what fraction of her journey will she have completed?

Tick (✓) the fraction that is **closest** to the correct answer.

(i) $\frac{5}{10}$ ☐

(ii) $\frac{6}{10}$ ☐

(iii) $\frac{7}{10}$ ☐

(iv) $\frac{8}{10}$ ☐

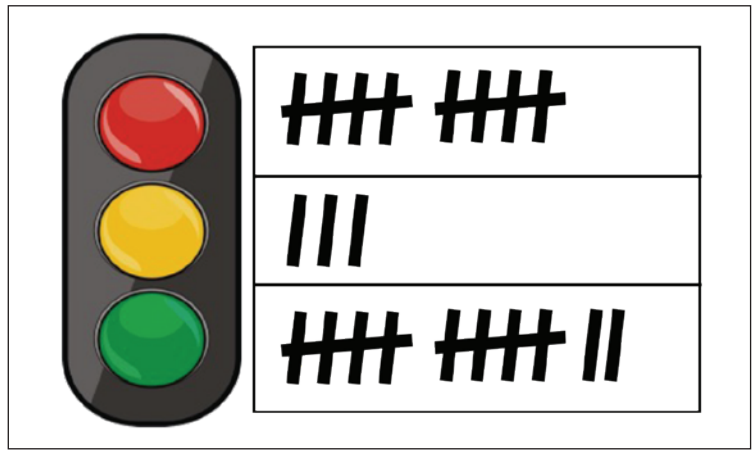
(v) $\frac{9}{10}$ ☐

Ka hautū a Deena i tana motukā i ngā rama pūtahi i te wāhi kotahi i taua wā tonu rā i ia rā.

Ka whakarite ia i tētahi tūtohi tatau e mōhiotia ai mēnā rānei he tauira tō te tae o ngā rama.

E tohu ana ia māka i te tae o ngā rama i te rā kotahi.

Hei tā Deena, “Hei te tūnga e whai ake nei, kāore e kore ka kākāriki ngā rama.”



Te tūtohi tatau a Deena.

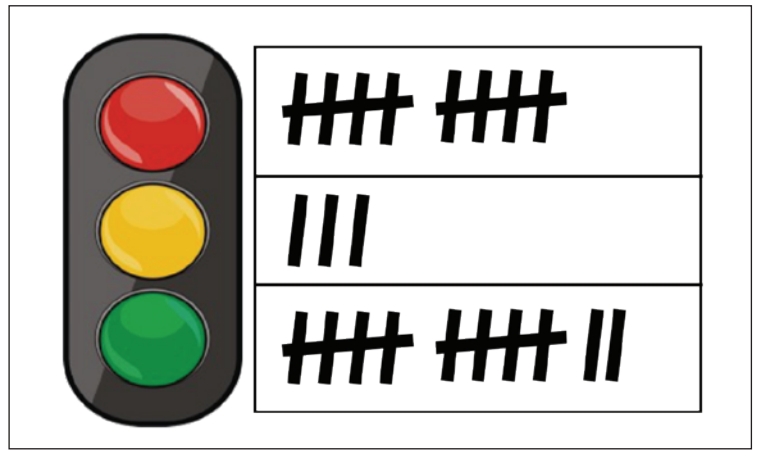
- (f) Kei te tika rānei tāna? Whakamāramatia tō whakautu mā te whakamahi i ētahi ōrau e hāngai ana ki te tūtohi tatau a Deena.

Deena drives through the same set of traffic lights at the same time every day.

She makes a tally chart to see if there is a pattern to the colour of the lights.

Each mark shows the colour of the lights on one day.

Deena says, "The next time, the lights will probably be green."

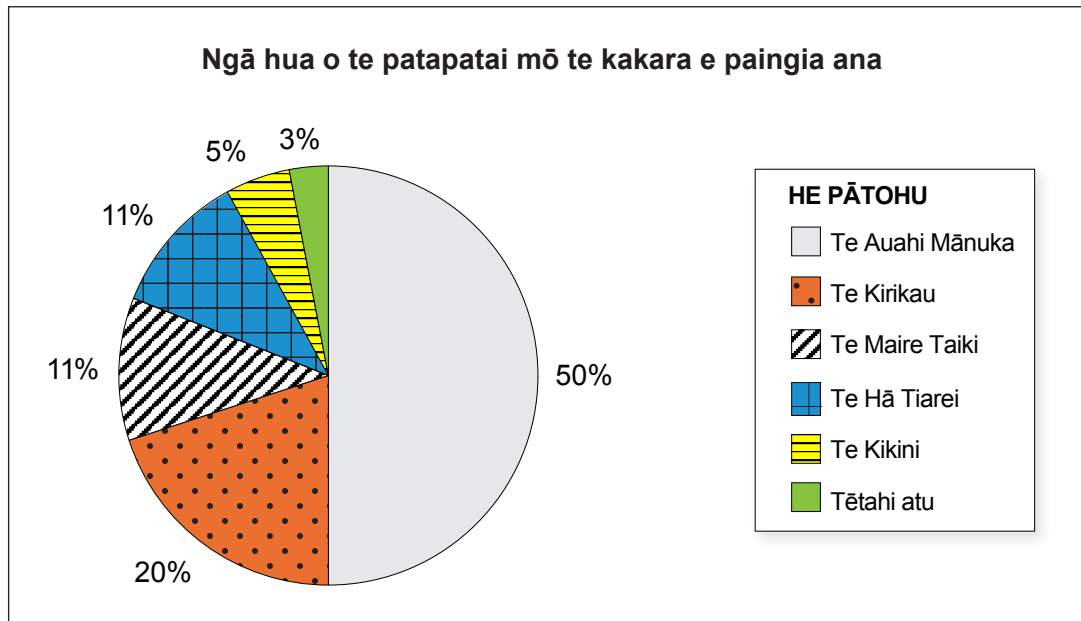


Deena's tally chart.

(f) Is she right? Explain your answer using percentages from Deena's tally chart.

TE TŪMAHI TUARIMA: Ngā kānara kakara

Ka hanga a Zion i ngā kānara hei hoko atu i te rangi māketē o tētahi kura. I tukua e ia tētahi patapatai e mōhiotia ai ngā kakara e paingia ana e ngā tāngata. Anei ngā hua.



- (a) Ko te hononga o ēhea kakara e rua e whakakapi ana i te wāhanga e nui ake ana i te rua haurua o ngā whiringa?

_____ me _____

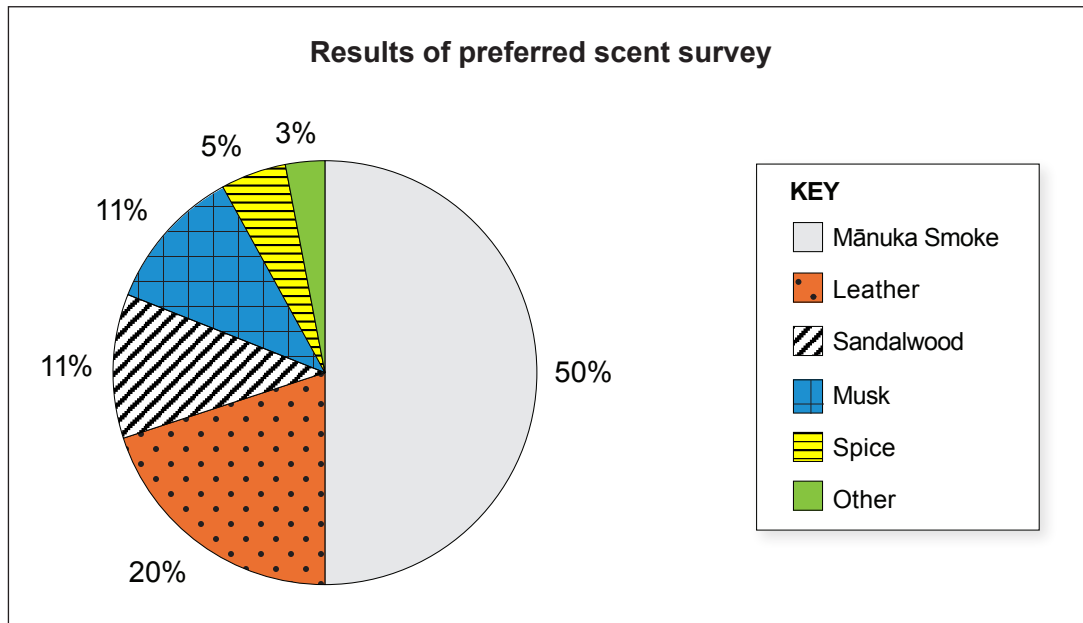
Ka hanga a Zion i ngā kānara mā te whai i tēnei ōwehenga: e rima ngā kānara Auahi Mānuka ki ngā kānara Kirikau e rua (5:2).

- (b) Ka hanga a Zion i ngā kānara e 84 mā te whai i te ōwehenga o te 5:2. Ka hia ngā kānara Auahi Mānuka ka hangaia e ia?

_____ ngā kānara Auahi Mānuka

QUESTION FIVE: Scented candles

Zion makes candles to sell at a school's market day. He sent out a survey to find out which scents people prefer. Here are the results.



- (a) Which two scents make up over two thirds of the choices?

_____ and _____

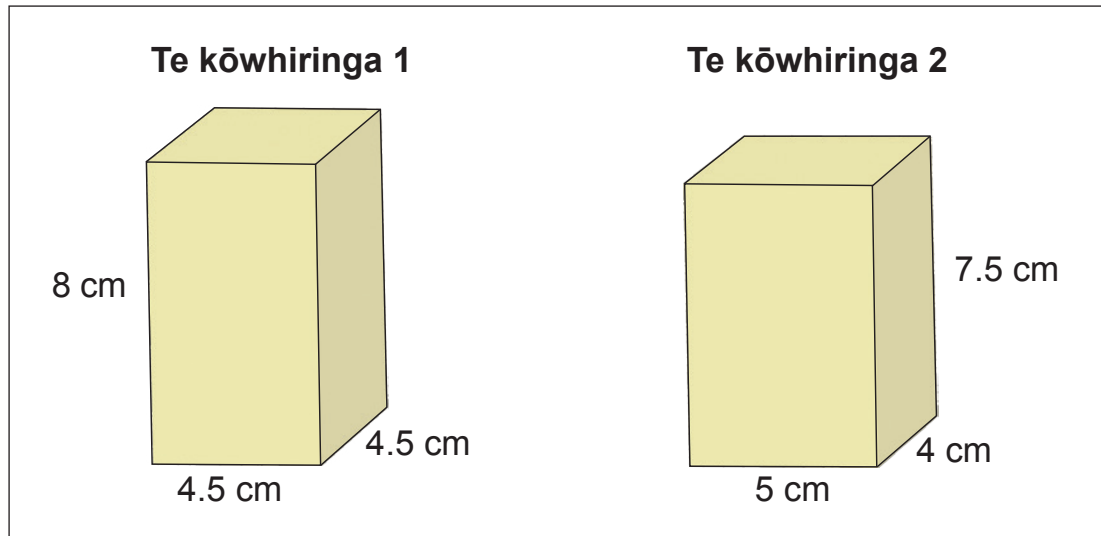
Zion makes candles using this ratio: five Mānuka Smoke candles to every two Leather candles (5:2).

- (b) Zion makes 84 candles using the 5:2 ratio. How many Mānuka Smoke candles does he make?

_____ Mānuka Smoke candles

Ka hanga hoki a Zion i ētahi kārara, he poro-tapawhā hāngai te āhua.

E iti ai ngā utu, me kua ngā kārara e nui rawa.



E mea ana a Zion kua 150 mitarau pūtoru (cm^3) te rōrahi o tēnā, o tēnā o ngā kōwhiringa e rua, kua iti iho rānei.

(c) Kei te tika rānei tā Zion? Whakamāramatia tō whakautu mā te whakamahi i ngā inenga o ngā kōwhiringa e rua o runga.

Kei te whakaatuhia i tēnei tūtohi te utu mō ngā rauemi. E hāngai ana te tapeke o te utu ki ngā kārara e 84.

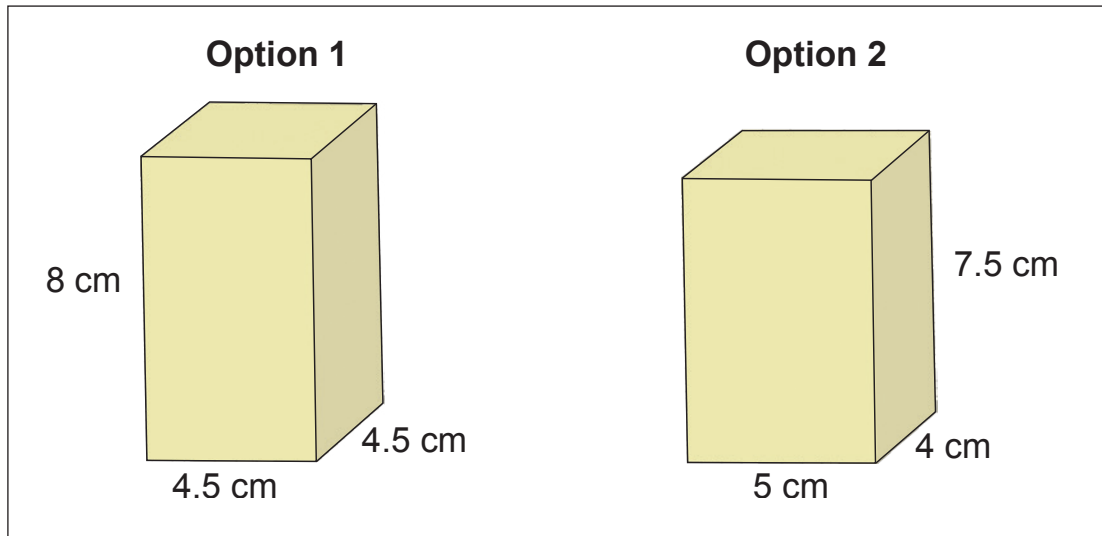
Te rauemi	Te tapeke o te utu mō te 84 kārara
Te wākihi mō te kārara	\$182.00
Te wiki mō te kārara	\$40.50
Te kakara mō te kārara	\$33.70
Te waitae mō te kārara	\$21.00

(d) Ka hia te utu hei hanga i tētahi kārara?

\$ _____

Zion also makes candles that are the shape of rectangular prisms.

To keep costs down, the candles cannot be too big.



Zion says that both options have a volume of 150 cm^3 or less.

(c) Is Zion right? Explain your answer using measurements from **both** options above.

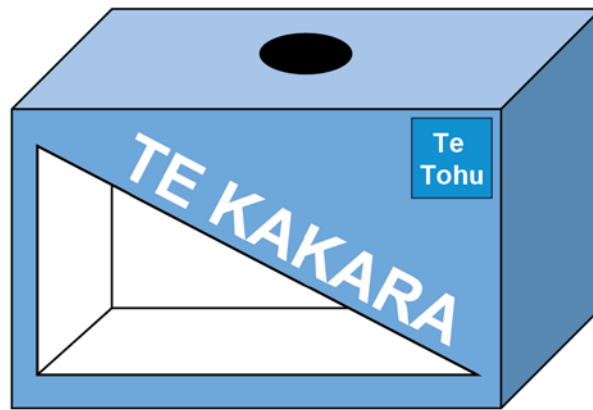
This table shows the cost of supplies. The total cost is for 84 candles.

Item	Total cost for 84 candles
Candle wax (13 kg)	\$182.00
Candle wicks	\$40.50
Candle scents	\$33.70
Candle dyes	\$21.00

(d) How much does it cost to make **one** candle?

\$ _____

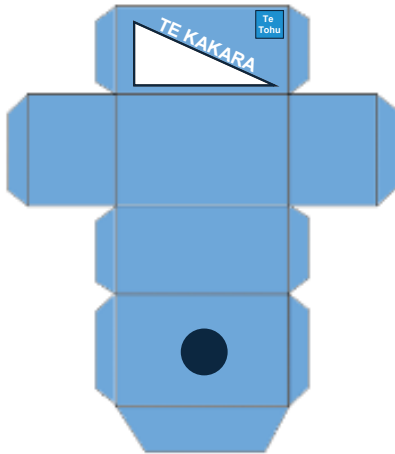
Me hanga a Zion i tētahi pouaka hei pupuri i tētahi kārara. Ka pēnei te āhua o te pouaka:



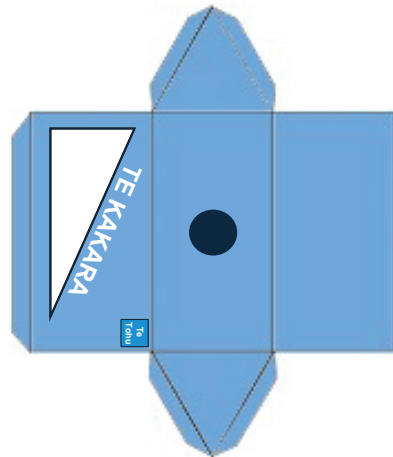
(e) Ko tēhea te raumata e hāngai ana ki te pouaka o runga ake nei?

Tīpakohia (✓) te whakautu e tika ana.

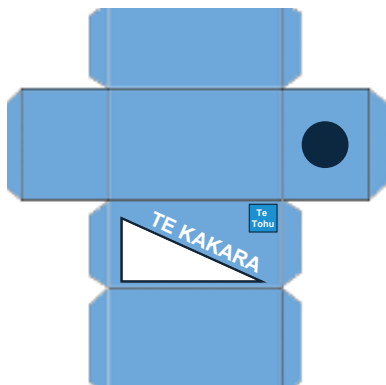
(i) ☐



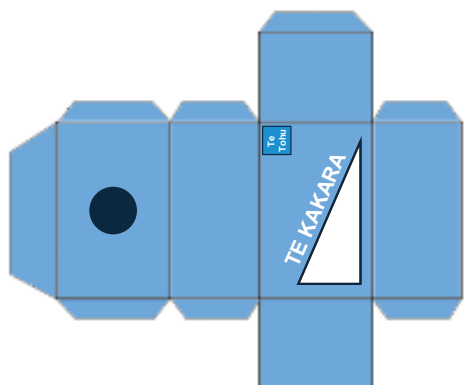
(ii) ☐



(iii) ☐

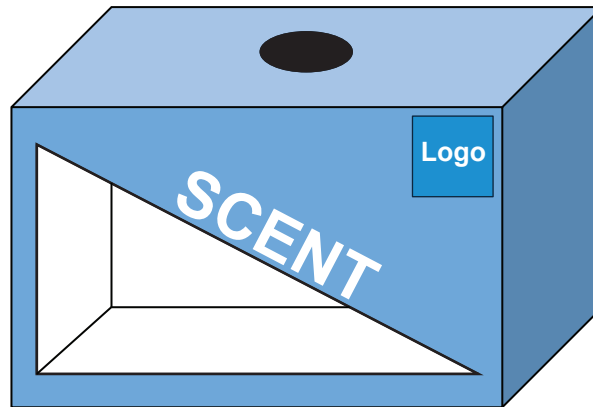


(iv) ☐



Zion needs to make a box to hold one candle.

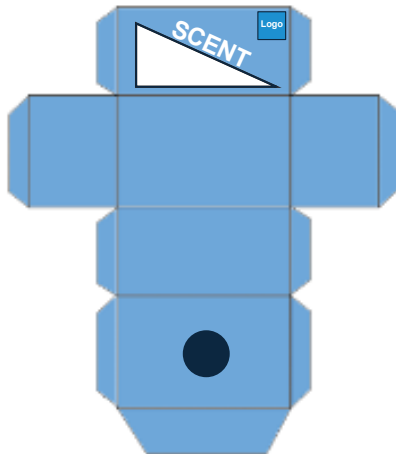
The box will look like this:



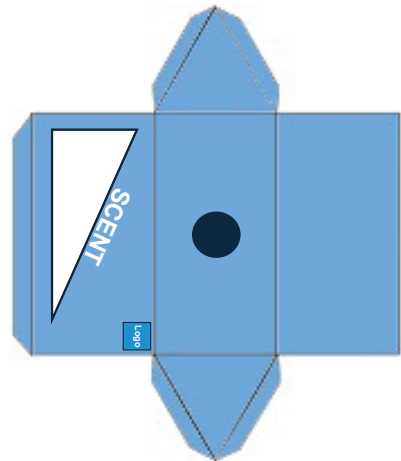
(e) Which net matches the box shown above?

Tick (✓) the correct answer.

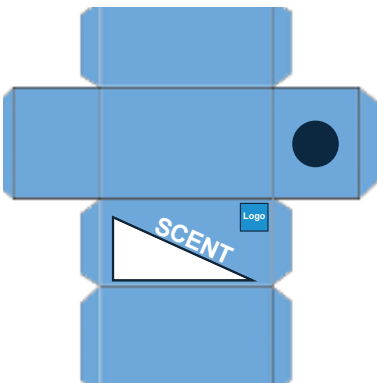
(i) ☐



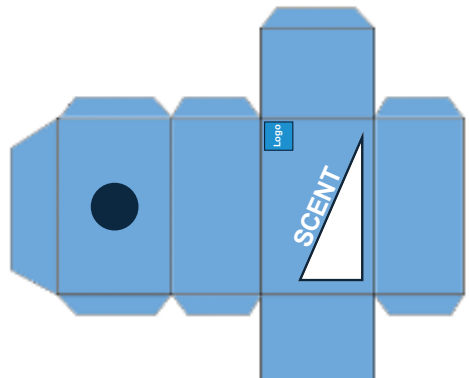
(ii) ☐



(iii) ☐



(iv) ☐



Ko tēnei te hekenga utu o te Rangi Māketē mō Ngā Kānara Kakara.



Ngā Kānara Kakara

E \$6.00 mō ia kānara

**Hokona ngā mea e 3
kia 30% te hekenga**

Kei te pīrangi a Jules ki te hoko i ngā kānara e rua hei perehana mā tana pāpā me tana koroua.

- (f) Me hoko rānei a Jules i ngā kānara e toru ka 30% te hekenga, me hoko rānei i ngā kānara e rua ka \$6 te utu o ia kānara?

Whakamāramatia tō whakautu mā te whakamahi i ētahi tātaihangā.

This is the Market Day special deal for Scented Candles.



Scented Candles

\$6.00 each

Buy 3 and get 30% off

Jules wants to buy two candles as gifts for her father and grandfather.

- (f) Should Jules buy three candles with 30% off, or two candles for \$6 each?

Explain your answer using calculations.

He whārangi tāpiri tēnei hei whakaoti i ō whakautu mēnā e hiahiatia ana.
Āta tuhia te tau o te pātai.

He whārangi tāpiri tēnei hei whakaoti i ō whakautu mēnā e hiahiatia ana.
Āta tuhia te tau o te pātai.

**He whārangi tāpiri tēnei hei whakaoti i ō whakautu mēnā e hiahiatia ana.
Āta tuhia te tau o te pātai.**

TAU PĀTAI

He whārangi tāpiri tēnei hei whakaoti i ō whakautu mēnā e hiahiatia ana.
Āta tuhia te tau o te pātai.

He mihi

Kua whakahāngaitia ngā rauemi i ngā puna e whai ake nei hei whakamahinga i tēnei aromatawai:

Te Tūmahi Tuatahi

Papatūānuku, <https://stock.adobe.com/images/planet-earth-or-world-globe-with-oceans-and-water-flat-vector-color-icon-for-apps-and-websites/170537095>

Te ika, https://as2.ftcdn.net/v2/img/02/78/07/69/1000_F_278076962_aGpb3OGG2ONzsRczAWb3pOCFtIPOXySx.jpg

Te mokomoko, <https://stock.adobe.com/nz/images/side-view-of-western-green-lizard-aka-lacerta-bilineata-isolated-on-white-background/558141610>

Te mokouki, https://as2.ftcdn.net/v2/img/02/96/43/13/1000_F_296431397_azSr3joO9Dnywn8v5IBHQY29nOFkJHqj.jpg

Te whāngote, <https://commons.wikimedia.org/wiki/Category:Paleocene>

Te tangata, https://t4.ftcdn.net/img/07/48/96/47/240_F_748964785_HSRxCdwfaijNY0gVm5o6dS3qXWTCCNm.jpg

Te honu e kauhoe ana, <https://andyoucreations.com/blog/how-fast-do-pacific-green-sea-turtles-swim/>

Ngā punua honu, <https://asiangeo.com/articles/turtle-nesting-season-in-singapore-how-can-we-help/>

Te honu hurihuri, <https://stock.adobe.com/nz/images/turtle-marine-animal-vector-sea-turtle-silhouette-clipart/670532819>

Te ine i te anga o tētahi honu, https://www.lls.nsw.gov.au/__data/assets/image/0007/1377070/Measuring-the-underside-of-a-juvenile-Eastern-long-neck-turtle.-Photo-Dan-Hutton_1.jpg

Te Tūmahi Tuarua

Te tohu o te utu, <https://stock.adobe.com/images/set-or-collection-brown-natural-craft-kraft-paper-hang-tags-price-tags-or-gift-tags-with-striped-bakers-twine-isolated-design-elements-different-positions-png-file/693906873>

Te pereti, <https://www.replacements.com/china-crown-lynn-polynesia/c/254524>

Te ipu nui me te kōrere, <https://www.ikea.com/ie/en/p/wardagen-jar-with-tap-80452639/>

Te Tūmahi Tuatoru

Ngā pipi, <https://www.poulosbros.com.au/pippies-fresh-goolwa-1kg>

Te hinaki pāpaka, <https://www.completeangler.co.nz/tackelman-heavy-duty-collapsible-crab-pot-55cm-11347>

Te tāmure, <https://www.mpi.govt.nz/fishing-aquaculture/recreational-fishing/information-on-popular-fish-in-nz/snapper-status-and-information/>

Te rūri, <https://stock.adobe.com/images/school-metal-ruler-isolated-on-white-background-metric-steel-ruler-isolated-on-white-30cm/678798856>

Te pūkaha tautau, <https://thumbs.dreamstime.com/z/man-starting-outboard-engine-plastic-boat-exhaust-smoke-motor-haugesund-norway-januray-yamaha-108589991.jpg>

Te Tūmahi Tuawhā

Te hautū waka, <https://www.aa.co.nz/drivers/driver-licences/learner-driver-licences/>

Te ine kora, <https://www.amazon.ca/Backlight-Adjustable-10-180ohm-240-30ohm%EBC%8CFuel-Motorcycle/dp/B09PG8519L>

Te mahere, <https://www.google.com/maps/dir/Dunedin/Christchurch/>

Te tohu motukā, https://stock.adobe.com/search?k=car+icon+front&asset_id=501416924

Te Tūmahi Tuarima

Ngā kānara, <https://stock.adobe.com/images/candles-kit-design-realistic-wax-base-of-different-shapes-and-flames-burning-lights-vector-set-illustration-fire-candle-candlelight-realistic/383008655>

Te mōki kua takaia, Adobe stock – he mea hanga e te AI

Acknowledgements

Material from the following sources has been adapted for use in this assessment:

Question One

Earth, <https://stock.adobe.com/images/planet-earth-or-world-globe-with-oceans-and-water-flat-vector-color-icon-for-apps-and-websites/170537095>

Fish, https://as2.ftcdn.net/v2/jpg/02/78/07/69/1000_F_278076962_aGpb3OGG2ONzsRczAWb3pOCFtIPOXySx.jpg

Lizard, <https://stock.adobe.com/nz/images/side-view-of-western-green-lizard-aka-lacerta-bilineata-isolated-on-white-background/558141610>

Dinosaur, https://as2.ftcdn.net/v2/jpg/02/96/43/13/1000_F_296431397_azSr3joO9Dnywn8v5IBHQY29nOFkJHqj.jpg

Mammal, <https://commons.wikimedia.org/wiki/Category:Paleocene>

Human, https://t4.ftcdn.net/jpg/07/48/96/47/240_F_748964785_HSRxCdwfajjNY0gVm5o6dS3qXWTCCNrm.jpg

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Baby turtles, <https://asiangeo.com/articles/turtle-nesting-season-in-singapore-how-can-we-help/>

Rotating turtle, <https://stock.adobe.com/nz/images/turtle-marine-animal-vector-sea-turtle-silhouette-clipart/670532819>

Measuring a turtle's shell, https://www.lls.nsw.gov.au/__data/assets/image/0007/1377070/Measuring-the-underside-of-a-juvenile-Eastern-long-neck-turtle.-Photo-Dan-Hutton_1.jpg

Question Two

Price label, <https://stock.adobe.com/images/set-or-collection-brown-natural-craft-kraft-paper-hang-tags-price-tags-or-gift-tags-with-striped-bakers-twine-isolated-design-elements-different-positions-png-file/693906873>

Plate, <https://www.replacements.com/china-crown-lynn-polynesia/c/254524>

Large jar with tap, <https://www.ikea.com/ie/en/p/vardagen-jar-with-tap-80452639/>

Question Three

Pipi, <https://www.poulosbros.com.au/pippies-fresh-goolwa-1kg>

Crab pot, <https://www.completeangler.co.nz/tacklemans-heavy-duty-collapsible-crab-pot-55cm-11347>

Snapper fish, <https://www.mpi.govt.nz/fishing-aquaculture/recreational-fishing/information-on-popular-fish-in-nz/snapper-status-and-information/>

Ruler, <https://stock.adobe.com/images/school-metal-ruler-isolated-on-white-background-metric-steel-ruler-isolated-on-white-30cm/678798856>

Outboard motor, <https://thumbs.dreamstime.com/z/man-starting-outboard-engine-plastic-boat-exhaust-smoke-motor-haugesund-norway-januray-yamaha-108589991.jpg>

Question Four

Driving, <https://www.aa.co.nz/drivers/driver-licences/learner-driver-licences/>

Fuel gauge, <https://www.amazon.ca/Backlight-Adjustable-10-180ohm-240-30ohm%EFB%BC%8CFuel-Motorcycle/dp/B09PG8519L>

Map, <https://www.google.com/maps/dir/Dunedin/Christchurch/>

Car icon, https://stock.adobe.com/search?k=car+icon+front&asset_id=501416924

Question Five

Candles, <https://stock.adobe.com/images/candles-kit-design-realistic-wax-base-of-different-shapes-and-flames-burning-lights-vector-set-illustration-fire-candle-candlelight-realistic/383008655>

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32406M Apply mathematics and statistics in a range of everyday situations

Credits: Ten

OUTCOMES	
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2	Use mathematics and statistics to meet the numeracy demands of a range of everyday situations.
3	Explain mathematical and statistical responses to situations.

Enter your National Student Number (NSN) and School Code into the space above.

You should attempt ALL the questions in this booklet.

If you need more room for any answer, use the extra space provided at the back of this booklet.

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Do not write in the margins (/////). This area will be cut off when the booklet is marked.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.