

Ke fakatumulia e te tino apalai

NSN

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Te fakailoga
fakapitoa a te ākoga

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E FAKAOGĀ OI OTI E TE
TAKITAKI GALUEGA

See the back page for an English
translation of this cover

Tuhi he ekihi i loto ote puha (☒)
kafai ko heki KE tuhia ki te tuhi

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+

32406T TEMI 3



Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Numela 2024

32406T Apalai te matematika ma te hitetika i ni vaega kehekehe i aho takitahi

Maaka: Hefulu

NA VAEGA FAKAMOEMOEGIA	
1	Fau ni auala tau matematika ma te hitetiki ke tautali ai ki na fakafitauli i ni vaega kehekehe o na aho taki tahi.
2	Fakaogā na auala matematika ma te hitetika ke tautali ai ki na manakoga tau numela o na vaega kehekehe i aho takitahi.
3	Fakamatala ni tautaliga tau matematika ma te hitetika ki na vaega kehekehe.

Tuku mai tau numela fakailoga fakamua mo te tamaiti ākoga (NSN) ma te numela fakailoga a te ākoga i te avanoa i luga.

E tatau ke taumafai ke tali UMA na fehili i loto o tenei tuhi.

Kafai e manakomia ni ietahi avanoa ke tautali kiei, fakaogā te avanoa fakaopoopo kua tuku atu i tua o tenei tuhi.

Hiaki pe kātoa na pahina 2–43 i te fakahologa hako ma e heai he pahina e he iei ni tuhituhiga ai.

Koe na hē tuhi ki te avano i te itū agavale (//////). Ko te avanoa tenei e tipi kehe kafai te tuhi e māaka.

E TATAU KE FOKI E KOE TENEI TUHI KI TE TAKITAKI KAFAI KUA FAKAMUTA TE HUKEGA.

FEHILI MUAMUA: Fonu

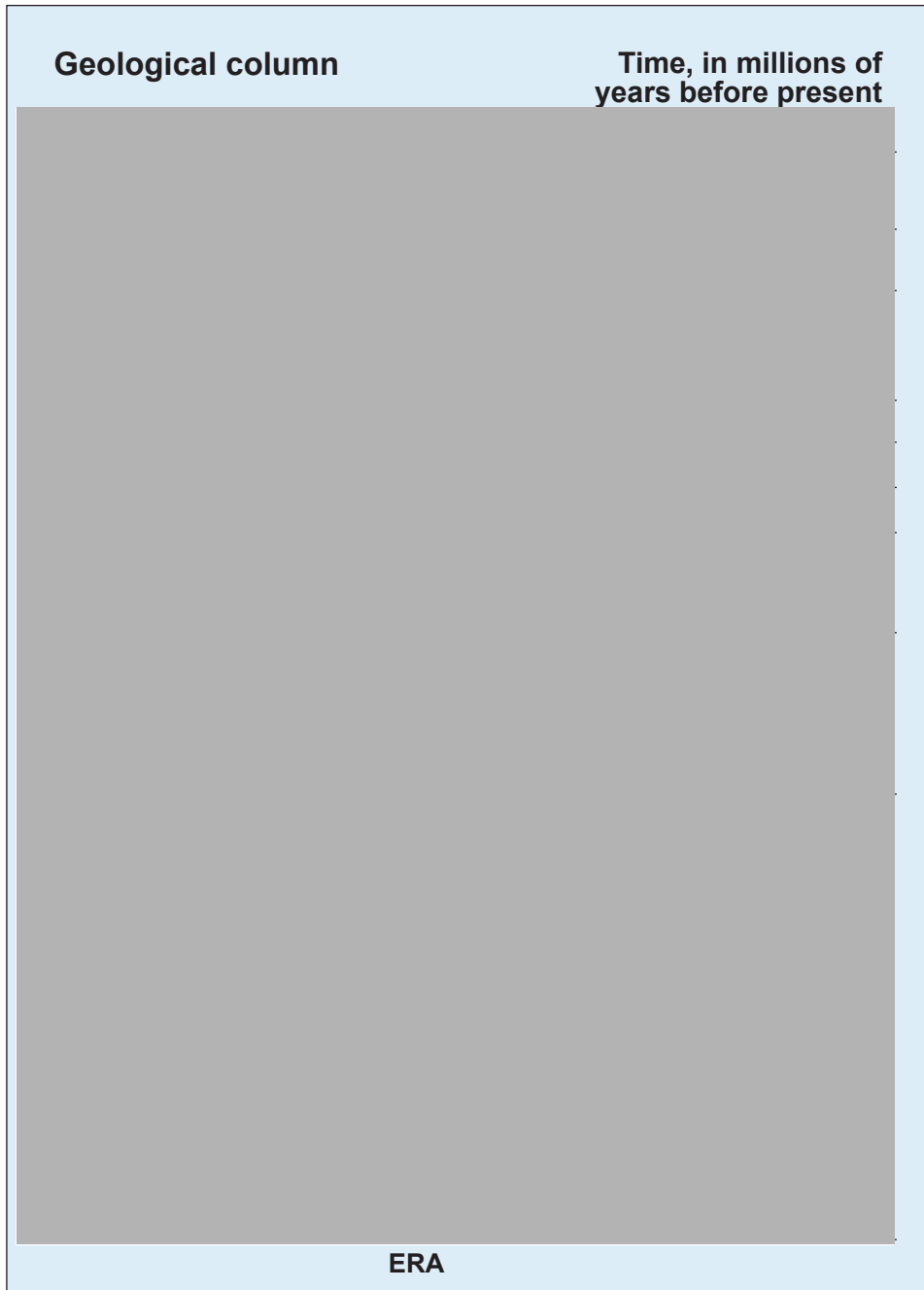
Ko na fonu muamua na feola e tuha ma te 230 miliona tauhaga kua teka.

Fakavahegaga o he kogāfenua	Taimi, e tuha ma he fia miliona tauhaga ko heki pa mai ki ona po nei
ERA	

- (a) Na ola na fonu i te taimi nae feola ai na tainohoa? Fakaogā na fakamatalaga mai te ata ke fakamaina ai tau tali.

QUESTION ONE: Turtles

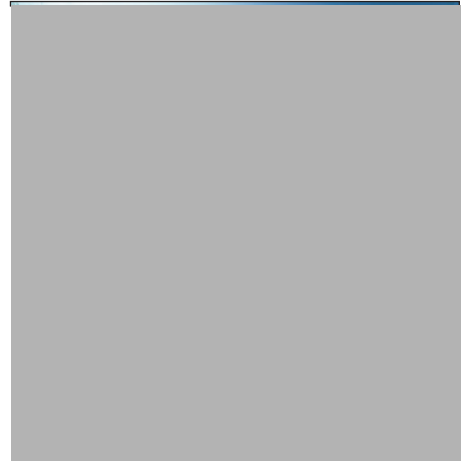
The first turtles lived around 230 million years ago.



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

Ienei na vaega muamua o na hetu mo na fakamatalaga. E tuha ma te 1000 ia fonu i te ata katoa.

Itukaiga meaola	He Tama/ He teine	Fua o te atigi (cm)	Mamafa (kg)
Lanu meamata	Teine	87	108
Loggerhead	Tama	76	89
Lanu meamata	Tama	123	145
Hawksbill	Teine	65	71
Hawksbill	Teine	54	64
Loggerhead	Tama	81	93



(b) Tuhi he fehili e mafai ke tali kui i te fakaoga o na fakamatalaga mai te ata tenei.

E fokotahi oi oti he pepe fonu mai te 100 e ola ki te matua.

(c) Tefea te tehimale mo te tauvaega o te tahi i loto o ni taumafaiga e 100?

Tiki (✓) te tali hako.

☐

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



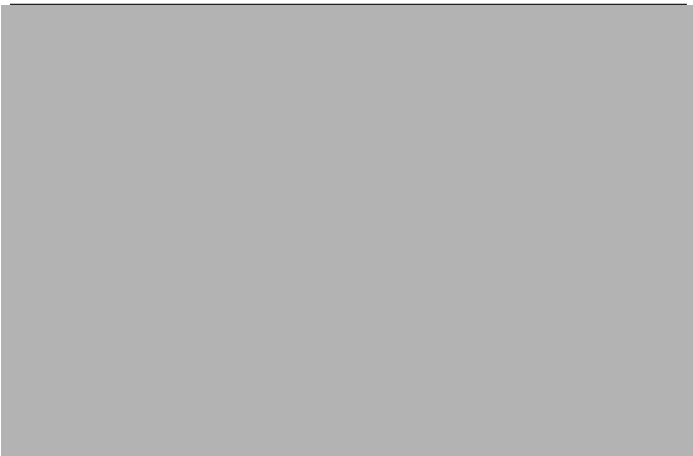
(b) Write a question that could be answered using information from this table.

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



Ko te kalafa tenei e fakaali mai ai te fuainumela ma na itūkaiga o na fonu e maua i Fiti, i na tau la vena na tau huhū.

Te fuainumela ma na itūkaiga fonu e maua i Fiti



E iei te nuhipepa Fiti e ia fakaogā na fuainumela mai te tau la ke taku mai ai te vaega tenei:

“E 23 oi oti ia fonu Hawksbill na maua. Ko te itūkaiga tenei kua fakalofa lele tona afainaga i loto oa tatou tai.”

(d) E malie koe kiei? Fakaogā na fakamatalaga mai te kalafa ke fakamatala ai tau tali.

This graph shows the numbers and types of turtles found in Fiji, in the wet and dry seasons.

Numbers and types of turtles found in Fiji



A Fiji newspaper uses the figures from the dry season to claim:

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

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

Ko te fuainumela tenei e fau mai te fakaogā o ni fuainumela fakafokifoki mo na fonu.



(e) Tefea te hitaili e talafeagai ma te hitaili o te fonu?

Hekolo  te tali hako.

(i)       

(ii)       

(iii)       

(iv)       

FAKAILOGA



● te piho o te fonu

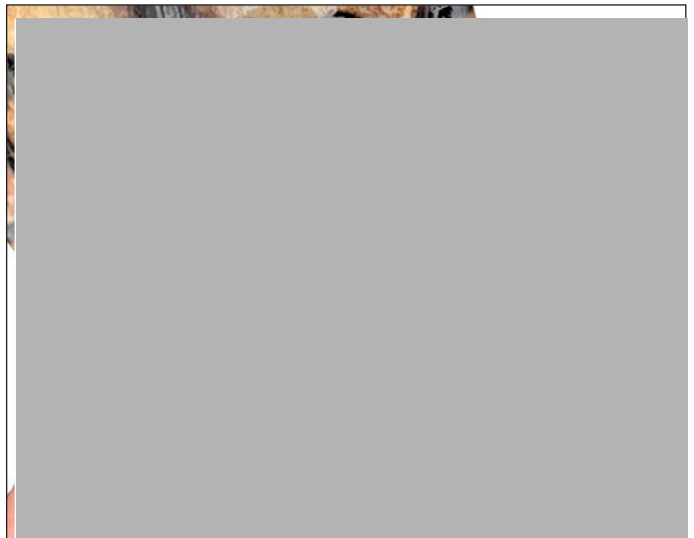
● te tino o te fonu

E manakomia e na fonu ni vai e lahi
i loto oa latou tane.

Mo **ho he henitimita** o te loa o te atigi
o he fonu, e tatau te tane ke fakatumu e
tuha ma te 15 lita i ni vai.

(f) E fia te aofaki o te vai e manakomia e
te fonu ite tane tenei?

_____ lita



Fuaga o he atigi fonu.

This pattern is made using a repeating turtle figure.

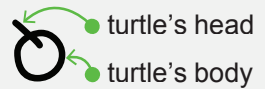


(e) Which pattern in the box below matches the turtle pattern?

Circle  the correct answer.

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

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?

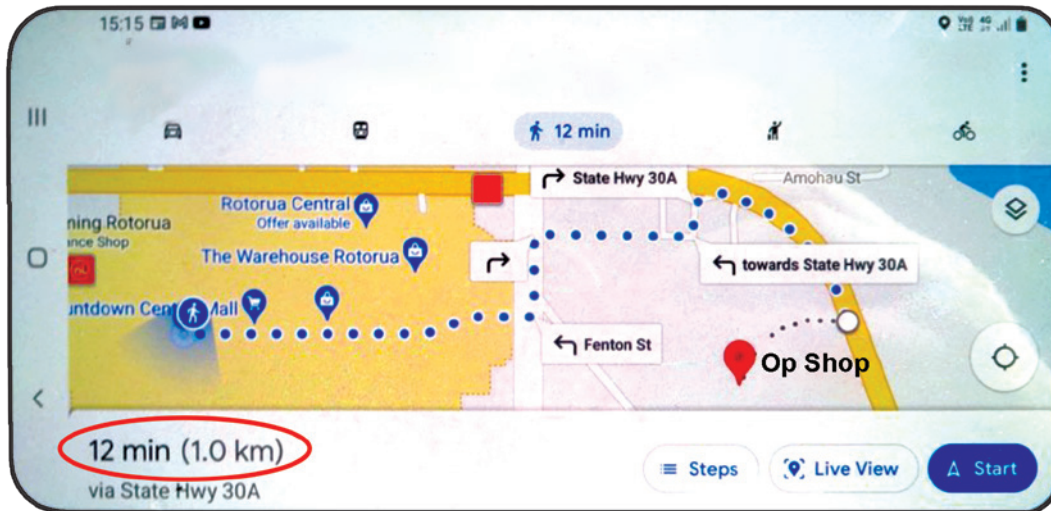
_____ litres



Measuring a turtle's shell.

FEHILI LUA: Pakū ite Koloa e fakatau ai na koloa fakaogā

Ko na fale koloa ienei ko ni fale koloa e fakatau atu ai ni koloa kua uma te fakaogā pe kua recycle foki. Ienei na hitepu ke kuia e koe ke maua ai te fale koloa.



- (a) Kafai e kātoa te 12 minute ke havalai ai he kilomita fokotahi, e fia ia kilomita e kē mafaia oi havalai i he itula?

_____ km

Ko te tau tenei o ni kofuvae loloa i te fale fakatau koloa fakaogā. Ko na kofuvae loloa ienei e \$120 kafai e fakatau kae koi fou.

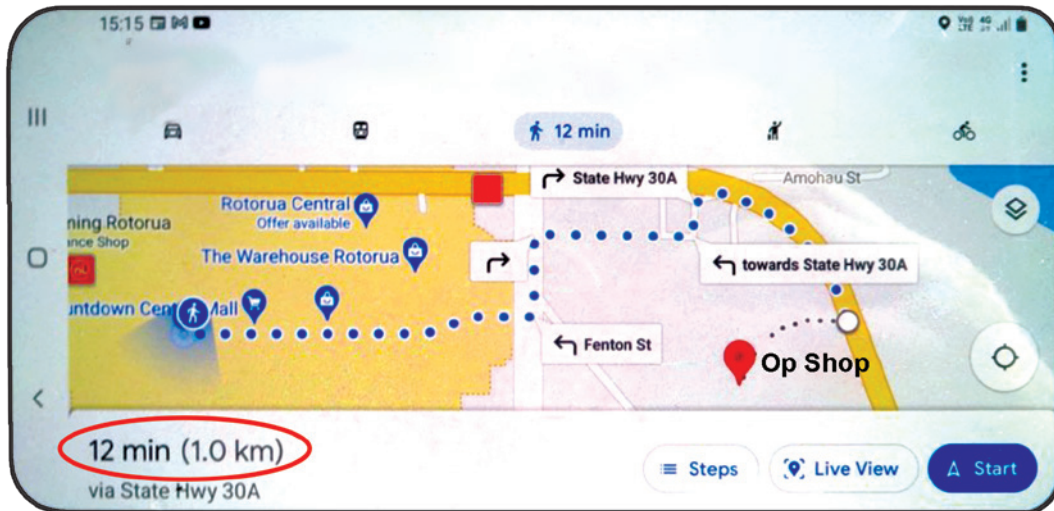


- (b) Hea te pahene o na kofuvae loloa fou lava, ko te tau ia e fakaogā e te fale koloa?

_____ %

QUESTION TWO: Bargains at the op shop

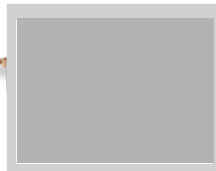
An op shop is a place where people buy things that are recycled. Here are directions to get to an op shop.



- (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?

_____ %

Ko te ata tenei o he ipukai.

- (c) (i) E iei ni **fakaataata** (fakaata)
symmetry ote ipukai kātoa
(reflectional (mirror) symmetry)?

Tiki (✓) te tali hako.

Io ☐ Heai ☐

- (ii) E iei ni **mafai ke liliu** (liliu)
symmetry ote ipukai kātoa
(rotational (turn) symmetry)?

Tiki (✓) te tali hako.

Io ☐ Heai ☐



I loto o te falekoloa fakatau koloa fakaogā, e iei
te hofa feoloolo.

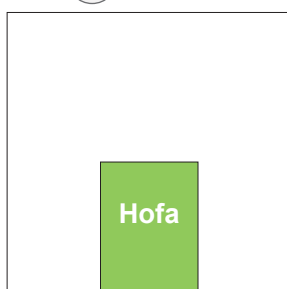
E tuha ma te 1.37 m te lauefa kae 1.88 m te loa.

E iei he potu e tuha ma te 3.5 m × 3.5 m.

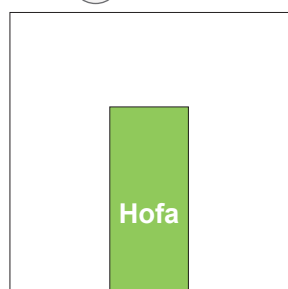
- (d) Tefea te ata e pitohili te lelei ite
fakaali mai pe vefea ona ofi te hofa
feoloolo tenei ki loto o te potu?

Tiki (✓) te tali hako.

(i) ☐



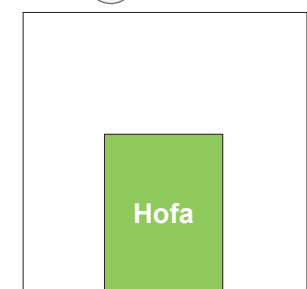
(ii) ☐



(iii) ☐



(iv) ☐



Here is an image of a plate.

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

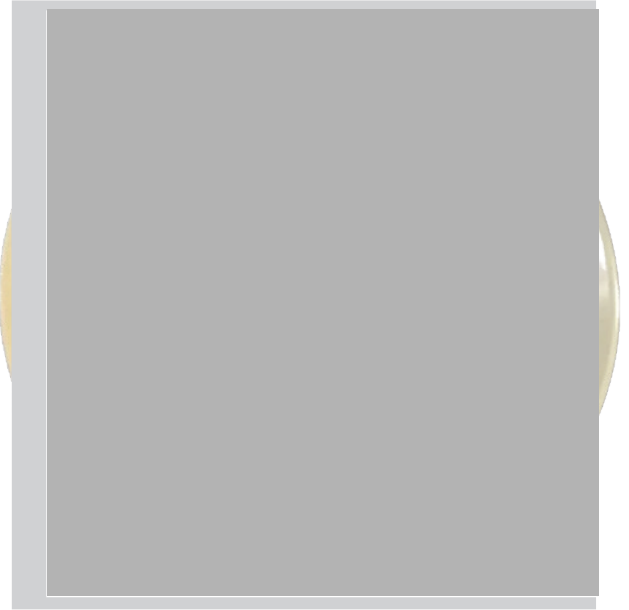
Tick (✓) the correct answer.

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.

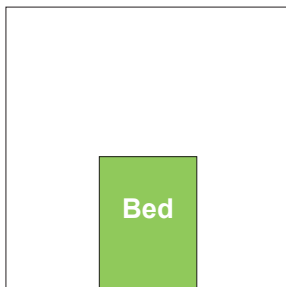
A bedroom measures 3.5 m × 3.5 m.

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

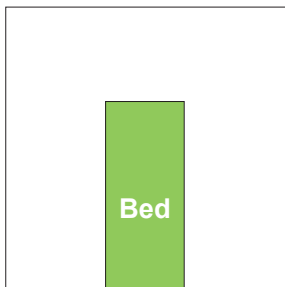
Tick (✓) the correct answer.



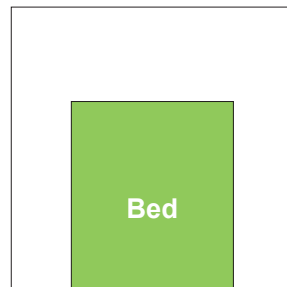
(i) ☐



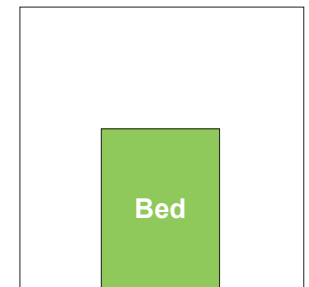
(ii) ☐



(iii) ☐



(iv) ☐

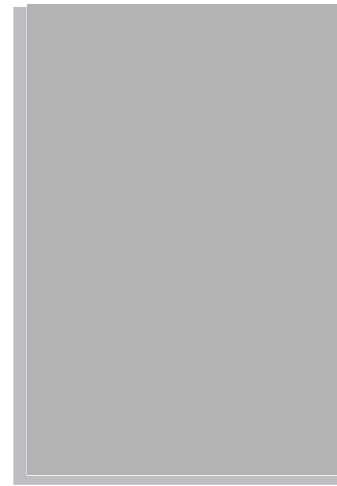


E mafai e te hiā tenei oi taofi ni vai e tuha ma te 20 ipu te mamafa.

Ko te ipu vai fokotahi e tuha ma te 250 mL.

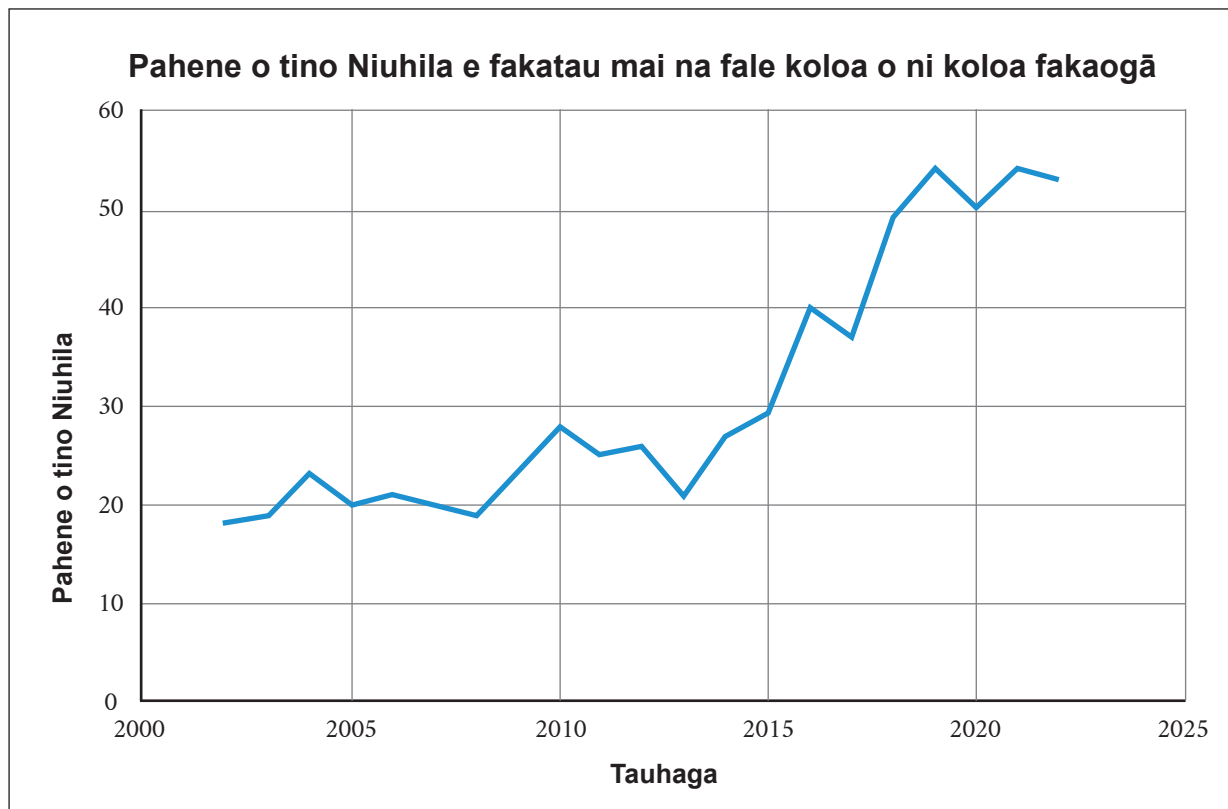
(e) E fia ia **lita** o ni vai e mafai e te hiā oi taofi?

_____ lita



Eiei he fai lipoti TV na ia fakatū maia te pahene o tagata Nihila e fakatau i na koloa fakatau koloa fakaogā kua fakatolugia i te 20 tauhaga taluai mai te 2002 ki te 2022.

Mātau: “Fakatolugia” e fakauiga ve he mea kua faka tolu taimi te aofaki.



(f) E hako te fai lipoti?

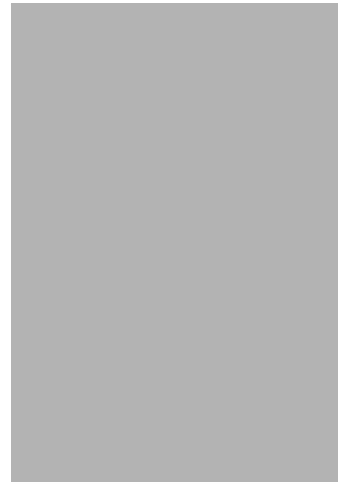
Fakaogā na fakamatalaga mai te kalafa ke taku mai ai pe malie, pe teteke koe, ki te latou fakatū.

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.

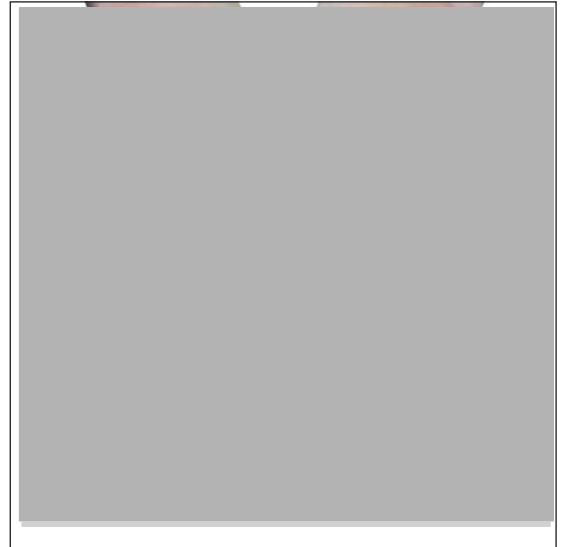
FEHILI TOLU: Figotamoana (Seafood)

Ko Awa e fia ao pipi, ko he figota mālie.

E mafai e Awa oi ao ni pipi e 60 ite itula.

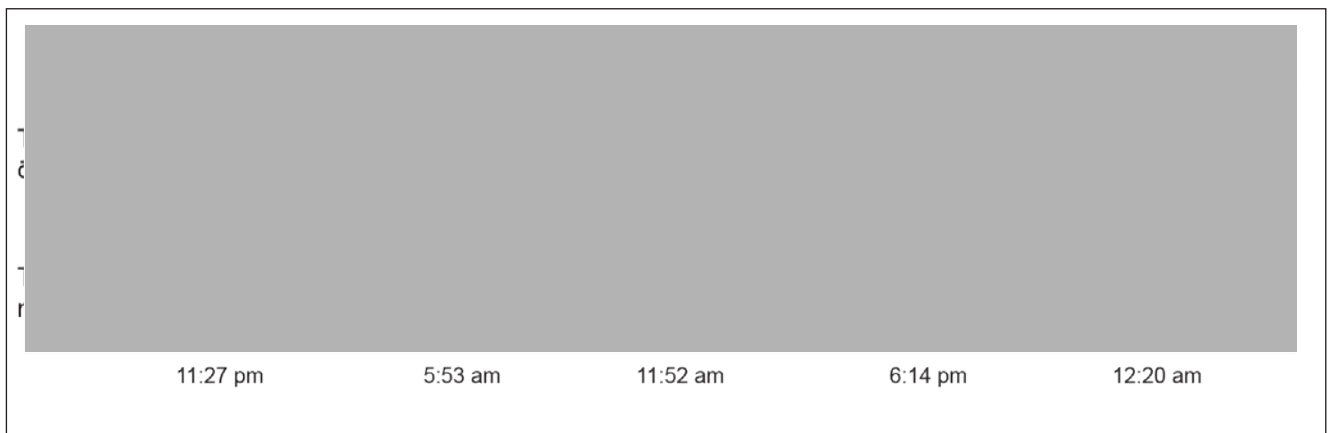
- (a) E vefea te mataloa, i **na itula ma na minute**, e manakomia ke ao ai e Awa ni pipi e 150?

_____ itula, ma _____ na minute



Awa holding pipi.

Ko tenei vaega ko he ata mo te Ahotonai 7 o Oketopa ma te vaega muamua o te Ahohā 8 Oketopa.



- (b) Ko Awa e fia ao figota ote moana ite **tai mumū**. Ko hea he taimi tonu e mafai ai e Awa oi ao figota ote moana i te Ahohā 8 Oketopa?

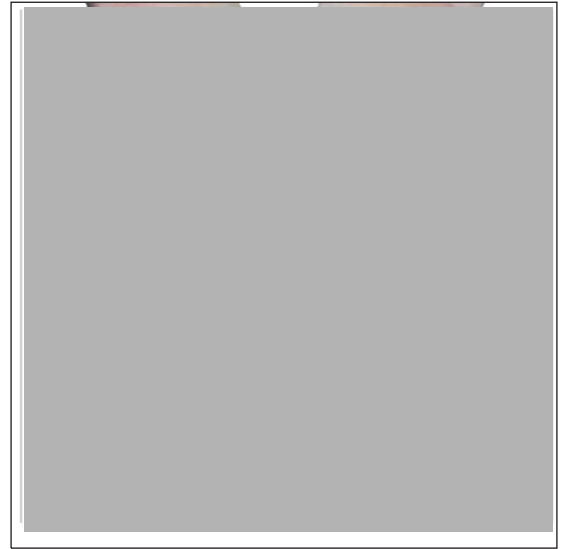
QUESTION THREE: Kaimoana (Seafood)

Awa wants to collect pipi, a tasty shellfish.

Awa can collect 60 pipi per hour.

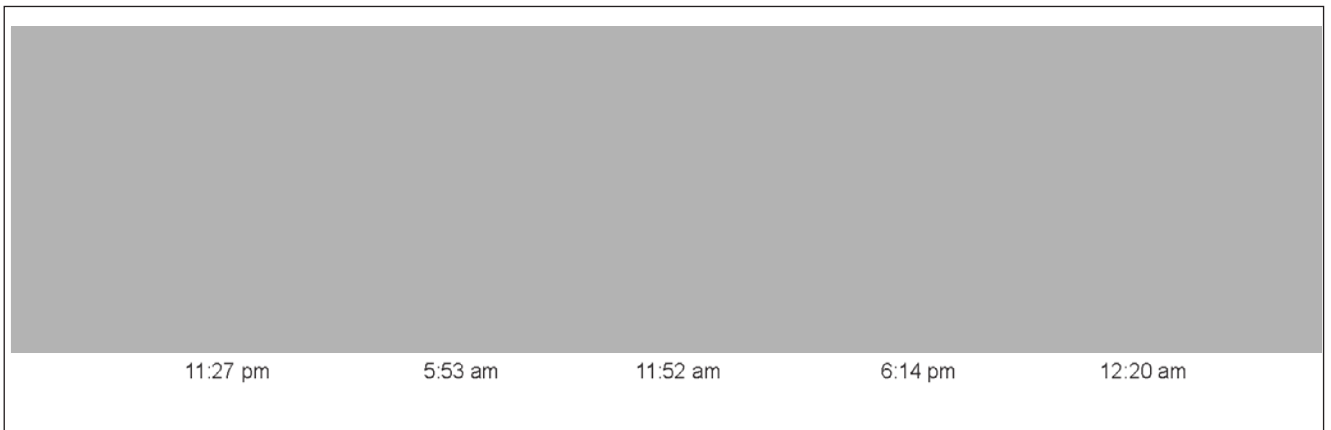
- (a) How long, in **hours and minutes**, will it take Awa to collect 150 pipi?

_____ 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?

Ko Awa e fofou ke hetu e ia he fakalalata ke popoki ai na tupa.

Ko te papa o Awa e fautua ke fakaogā he fakalalata (bait) e opo ai ni squid e tuha ma te $\frac{3}{8}$ kae ko ietahi mea uma ko ni meamoa.

- (c) E tuha ma te 150 g o na squid e nofo ma Awa, e fia kalama o na meamoa e manakomia e Awa?

_____ g



Ko na tino e fagota ika e mafai ke taofi ni a latou hinepa kafai e tuha ma te **taikole** 30 cm te loa (e kamata fua mai te V ite toke). Kafai e taikole atu ite 30 cm e tatau ke toe fakafoki ki te tai.



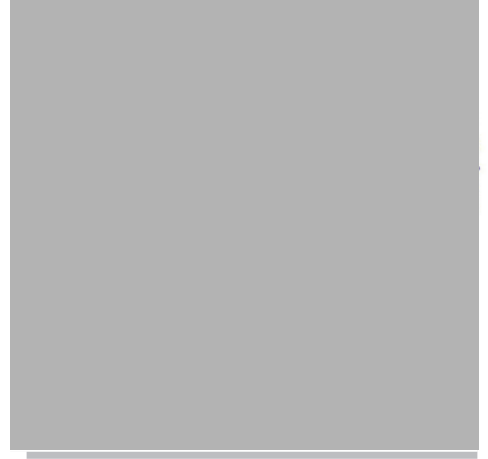
- (d) Ko te loa o te hinepa tenei e tai 30 cm. E tatau ke taofi e Awa te hinepa pe toe fakafoki e ia ki te tai? Fakamatala mai tau tali kae fakaogā mai na fua (measurements).

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

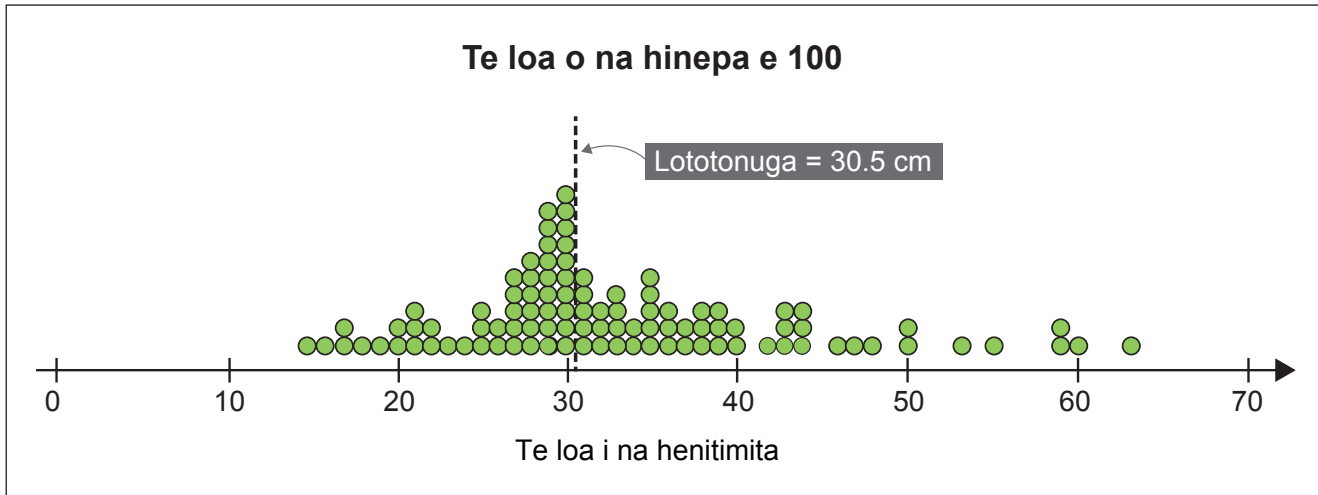


People who catch fish can only keep a snapper if it has a **minimum** length of 30 cm (measured from the V in its tail). If it is shorter than 30 cm it must be put back into the sea.



- (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.

Na kitea e Awa te kalafa tenei e uiga ki te loa o ni hinepa e 100.



- (e) Kua mafaufau ia Awa, kafai e ia taofia ni hinepa e 5 ke fafaga ai te kaiga e manakomia e ia ke popoki ni hinepa e 10 ma fakafoki ni hinepa e 5 ki te tai. E hako ia Awa? Fakaogā na aitia e uiga ki na vaegāmea ma na fuainumela mai te kalafa ke fakamatala ai tau tali.

E iei te vaka o Awa ma hana afi vaka e tuha ma te two-stroke. Ko te pehini mo te afi-vaka e opo te penihini ma te huaū i he fua e tuha ma te 50:1 (tai 2% huaū).

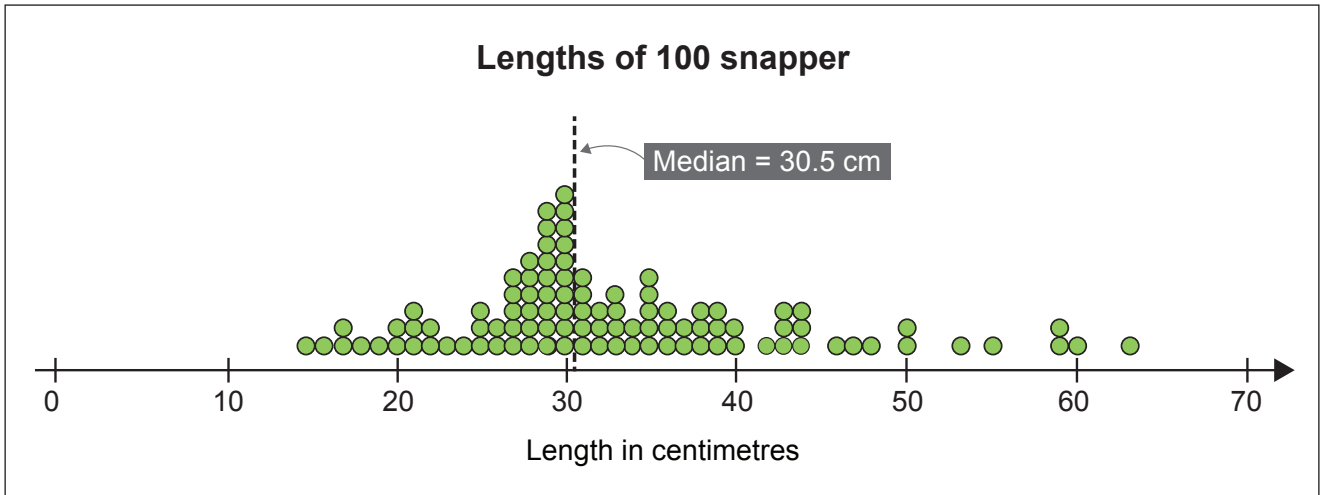
- (f) Kafai e 10 ia lita penihini a Awa, e fia ana huaū, i na **mililita**, e tatau ke ia fakaopoopa?

_____ mL



E iei te vaka o Awa ma hana afi vaka e tuha ma te two-stroke.

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.

FEHILI FA: Lehona Kavetavale

Ko Deena koi fakaakoako tana kave tavale.
Ko te lehona kave tavale i he itula
fokotahi e tuha ma te \$80.

Kafai e lima ia lehona e kave e Deena e
iei te 30% pakū.

- (a) E fia te tau mo na lehona kave tavale
e lima, ma te pakū?

\$ _____

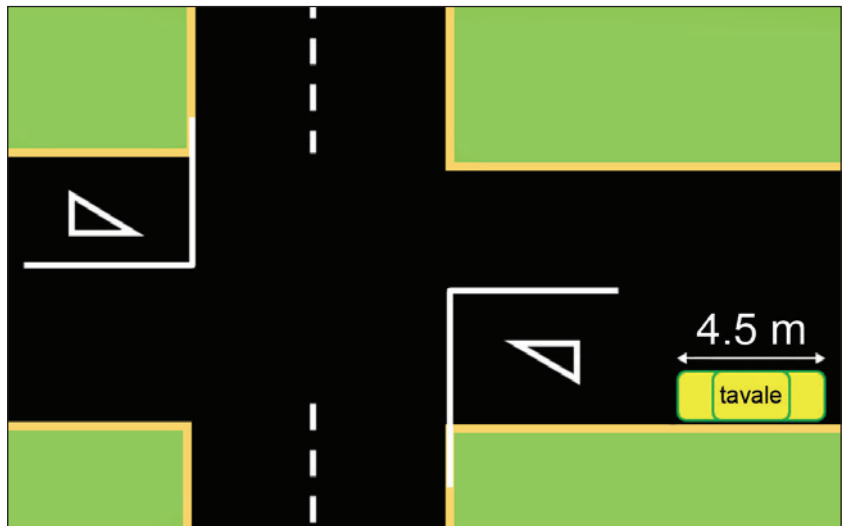


Ko Deena koi fakaakoako tana kave tavale.

Ko he tavale e fakatagagia
ite tulafono ke paaka kafai
e **ono mita pe hili ake** mai
te kopiti.

E iloa e Deena ko tana
tavale e 4.5 mita te loa.

Ko Deena na paaka e **tuha**
ma te 1½ te loa o he
tavale mai te kopiti.



- (b) E fakatagagia e te tulafono
ke paaka te tavale a
Deena? Fakamatala mai
tau tali kae fakaogā mai
na fua (measurements).

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?

\$ _____



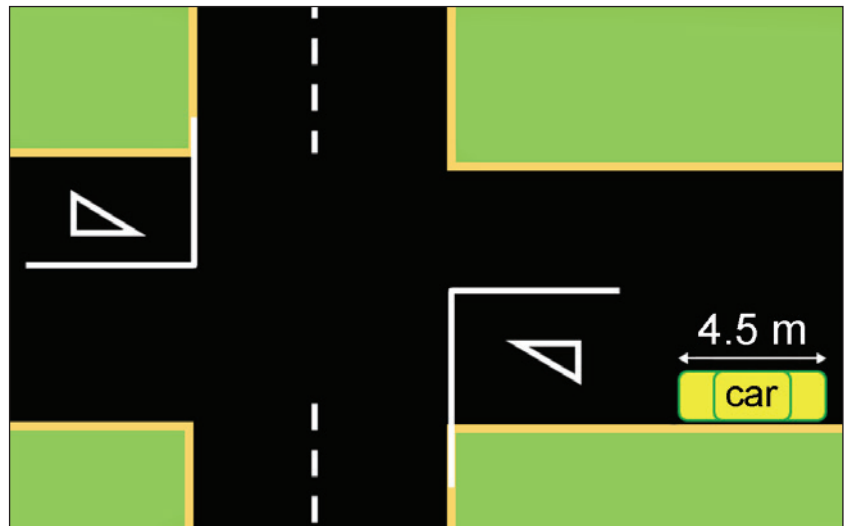
Deena learning to drive.

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

Deena knows her car is 4.5 metres long.

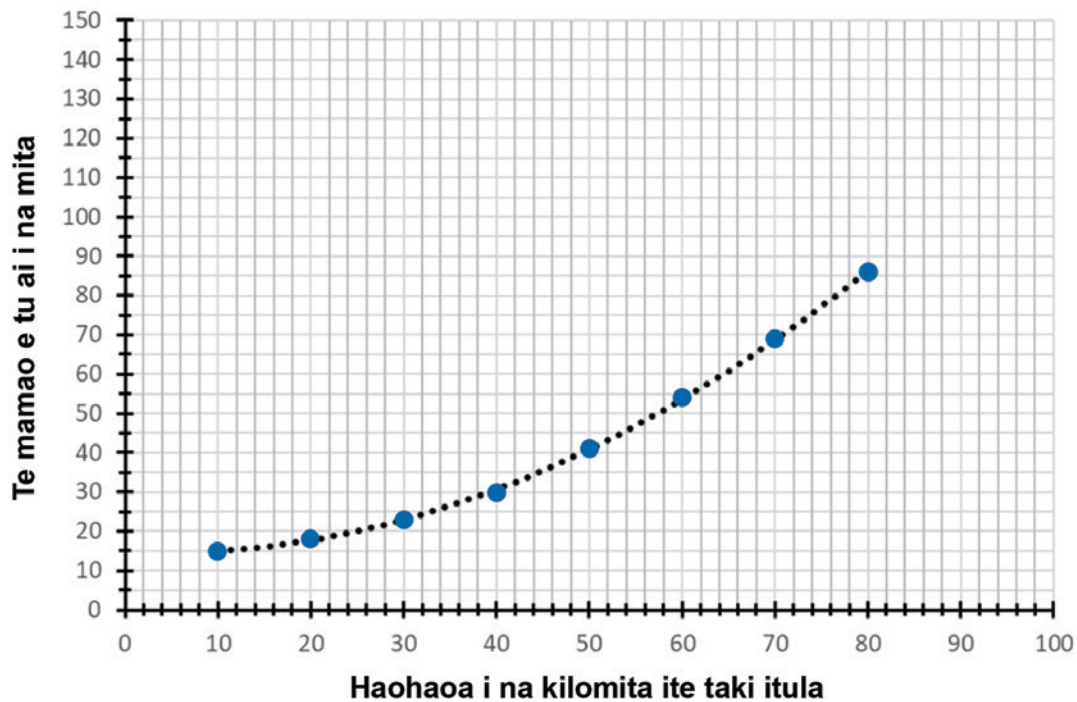
Deena parks $1\frac{1}{2}$ car lengths from the corner.

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



Ko te kalafa tenei e fakaali mai ai te loa e manakomia e he tavale ke tu i ni haohaoa kehekehe i na tau la.

Te hokotaga ote haohaoa ma te mamao e tu ai i na mita i te tau mātuttū



Ko te tavale a Deena e tele i he 100 kilomita ite itula.

(c) Mata e fia te mamao e manakomia e tana tavale ke tu ai?

_____ m

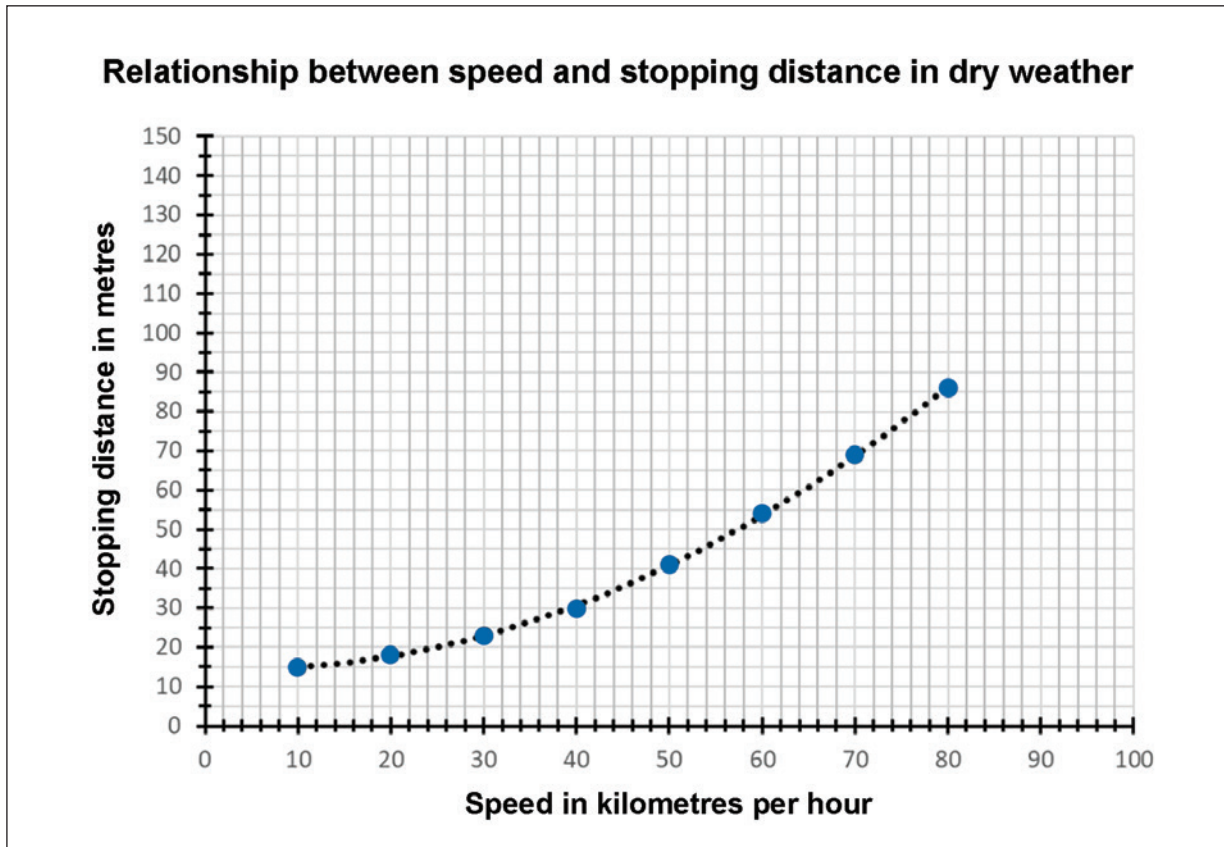
Kafai ia Deena e tu ite fale ki penihini, te fua (gauge) i tana tavale e venei:

E iloa e Deena ko tana tane e mafai ke taofi e ia te 48 lita kafai e tumu.

(d) Mata e fia ia lita penihini e manakomia e Deena ke fakatau ke fakatumu ai te tane?

_____ lita

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?

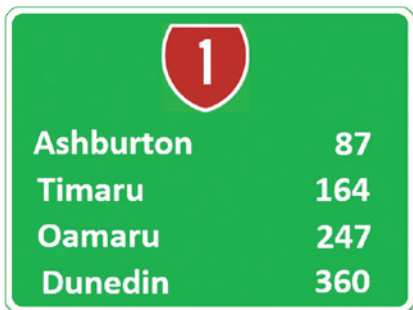
_____ litres



Deena e kave tavale mai Kulaihitete (Christchurch) fakamoemoe ke agai atu ki Taniteni (Dunedin).



Kua toe ia kitea te fakailoga auala, i fafo o Kulaihitete (Christchurch).



(e) Kafai ia Deena kua pa ki Oamaru, e tuha ma hea te vaegāmea o tana malaga kua ia fakatinoa?

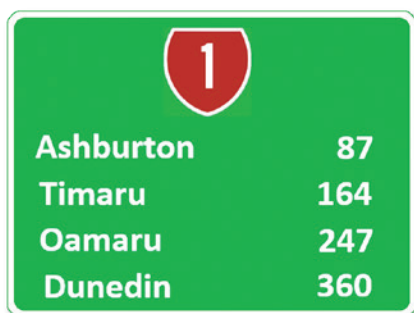
Filifili (✓) te vaegāmea e **tafapili** ki te tali hako.

- (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) $\frac{8}{10}$ ☐

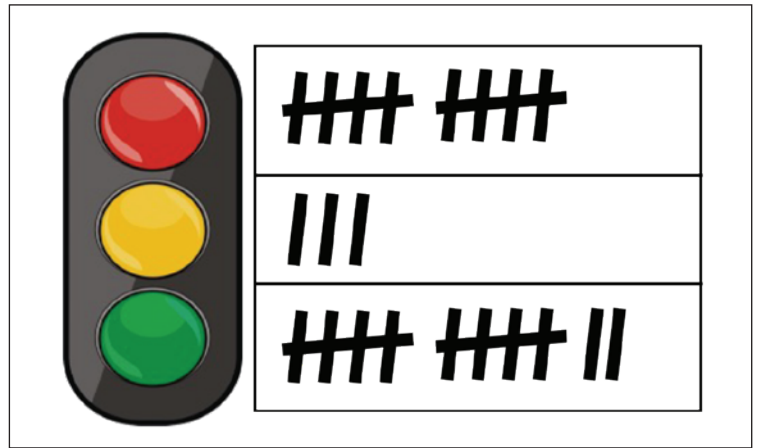
(v) $\frac{9}{10}$ ☐

Ko Deena e mahani oi kui i tana
tavale i na moli auala mahani lava ie
ite taimi lava teia ote aho i aho uma.

Na ia faua te ata mo na tally ke
kikila ai pe iei he ata hokotaga ki te
lanu o na moli.

Ko na fakailoga takitahi e fakaali
mai ai te lanu o na moli auala i he
aho fokotahi.

E leamai ia Deena, "Ko te taimi ka
hohoko, ko na moli auala e ono lanu
meamata."



Te ata tally a Deena.

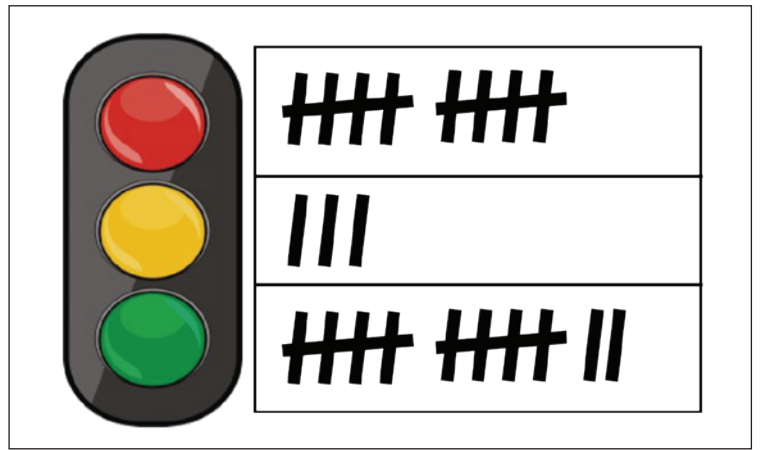
(f) E hako ia? Fakamatala tau tali kui ite fakaogā o na pahene mai te ata tally a Deena.

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."

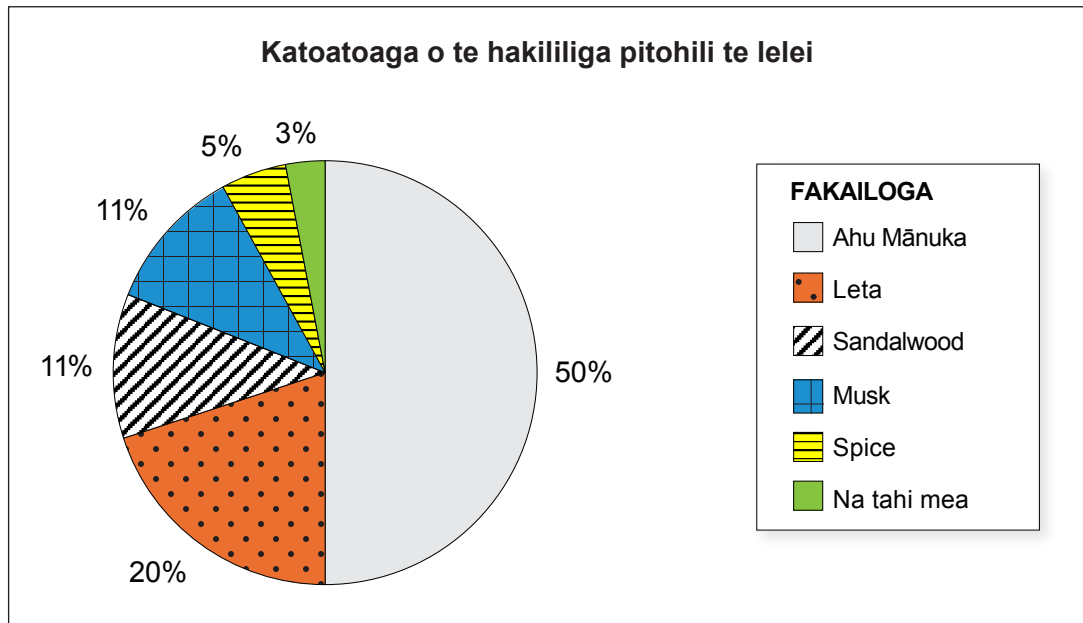


Deena's tally chart.

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

FEHILI LIMA: Moligako Fakamanogi

Ko Zion na ia faua ni moligako ke fakatau i te aho maketi a te aoga. Na ia fatua he hukehukega (survey) ke hakilikili ai pe ko iefea na manogi e fakamuamua e na tino. Ienei a latou fakaikuga.



(a) Ko ni manogi e lua vefea te e ova ake ai o te lua ovae tolu o na filifiliga?

_____ ma _____

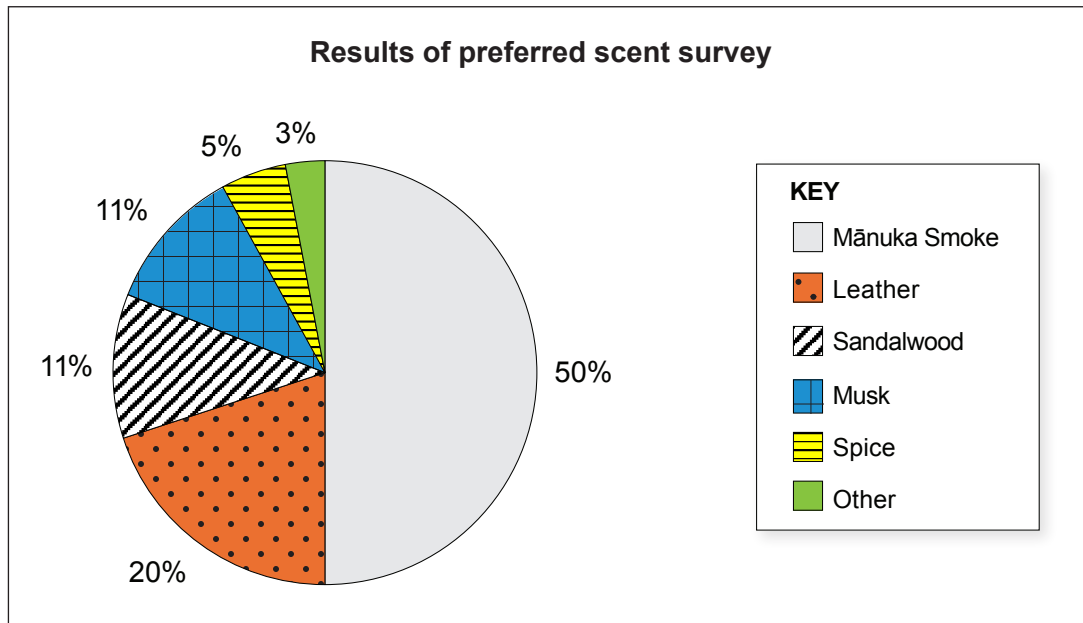
Na fau e Zion ni moligako kui ite fakaogā ote fua (ratio): lima ia moligako Ahu Mānuka ki te taki lua Leta moligako (5:2).

(b) E fau e Zion na moligako e 84 kae fakaogā te fua (ratio) ote 5:2. E fia ia moligako Ahu Mānuka e ia faua?

_____ Moligako Ahu 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 _____

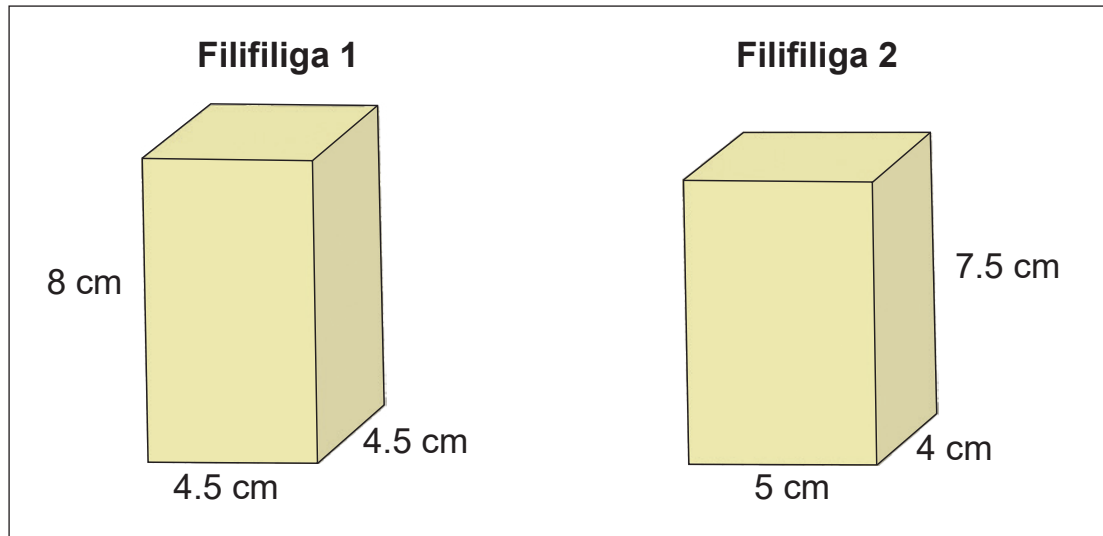
Zion makes candles using this ratio: five Mānuka Smoke candles to every two Leather candles (5:2).

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

_____ Mānuka Smoke candles

E fau foki e Zion na moligako e heipe o na rectangular prisms.

Ke fakataugofie te tau, ko na moligako e hē mafai ke hona fuaefa.



E leamai ia Zion ko na vaega uma e lua e tuha ma te 150 cm^3 te fuaefa pe taikole.

(c) E hako ia Zion? Fakamatala tau tali kui ite fakaogā o na fua **mai na vaega e lua** mai luga.

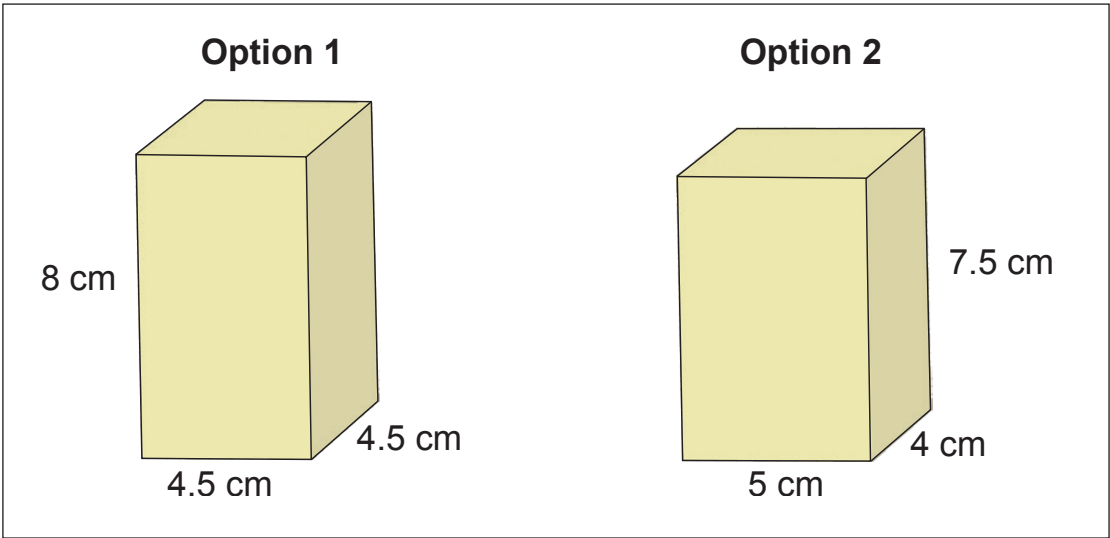
Ko te ata tenei e fakaali mai ai te tau o na hapalai. Te aofaki katoa ote tau mo na moligako e 84.

Itūkaiga moli gako	Tau ote fakatauga o na moli gako
Wax o na moli gako (13 kg)	\$182.00
Mata o na Moli gako	\$40.50
Moli gako manogi	\$33.70
Vali o na moli gako	\$21.00

(d) E fia te tau ke fau ai he moligako **fokotahi** ?

\$ _____

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 cm³ 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.

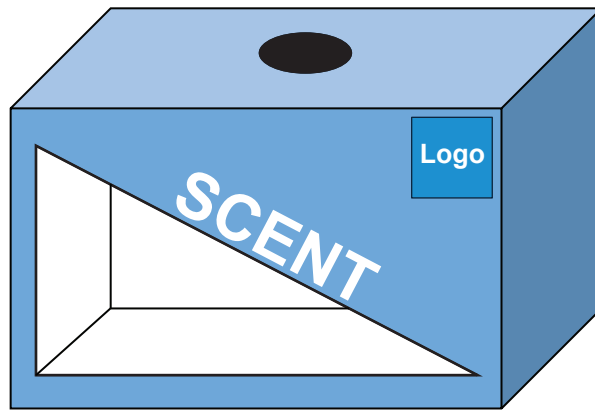
Item	Total cost for 84 candles
Candle wax (13 kg)	\$182.00
Candle wicks	\$40.50
Candle scents	\$33.70
Candle dyes	\$21.00

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

\$ _____

E manakomia e Zion ke fau he puha ke taofi ai he moligako fokotahi.

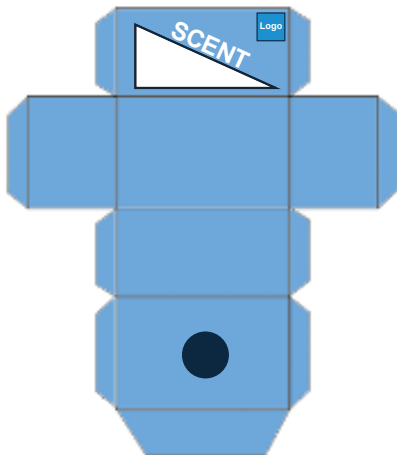
Ko te puha e foliga venei:



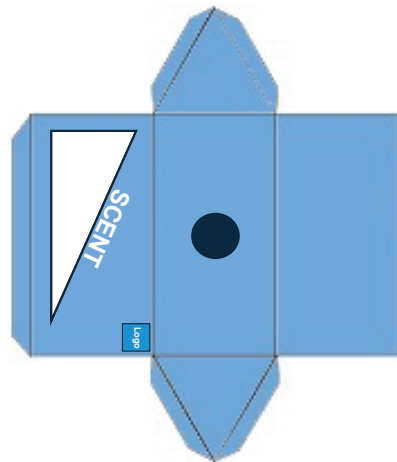
(e) Tefea te aofaki e talafeagai ki te puha kua tuku atu i luga?

Tiki (✓) te tali hako.

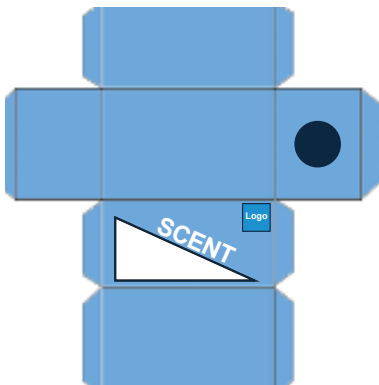
(i) ☐



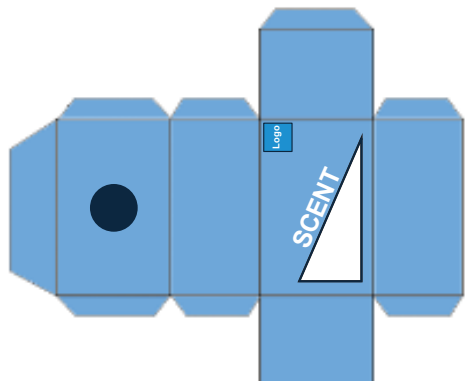
(ii) ☐



(iii) ☐

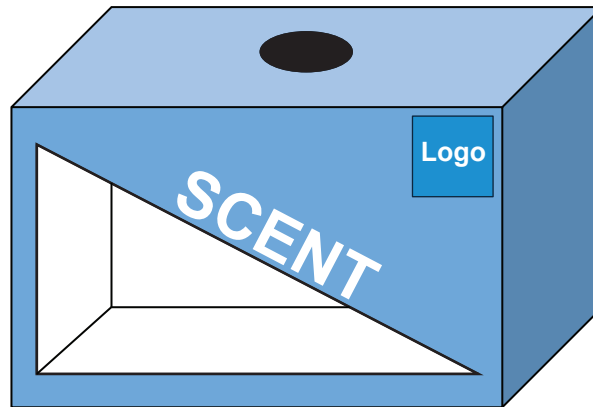


(iv) ☐



Zion needs to make a box to hold one candle.

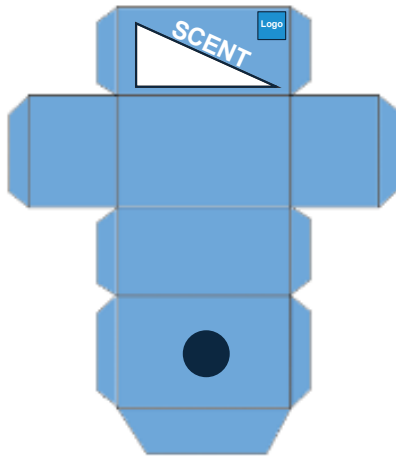
The box will look like this:



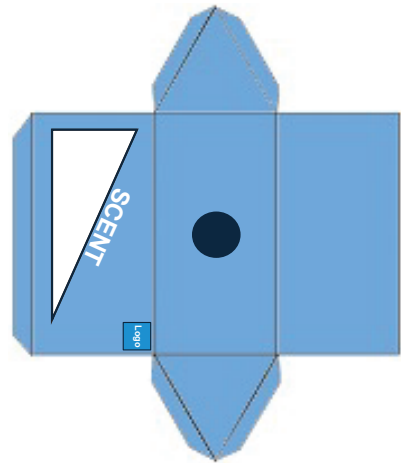
(e) Which net matches the box shown above?

Tick (✓) the correct answer.

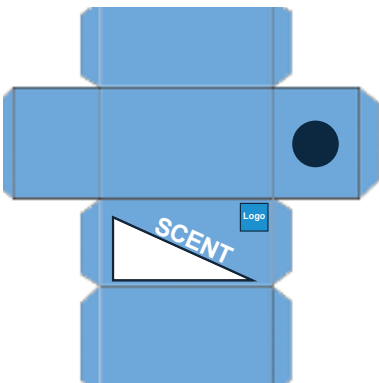
(i) ☐



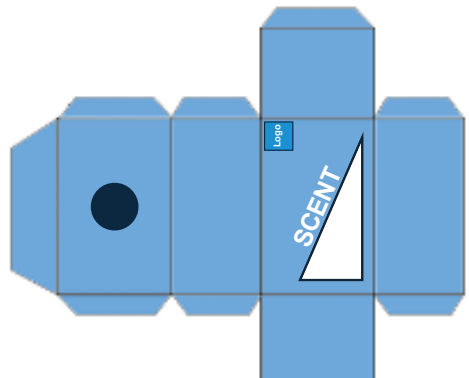
(ii) ☐



(iii) ☐



(iv) ☐



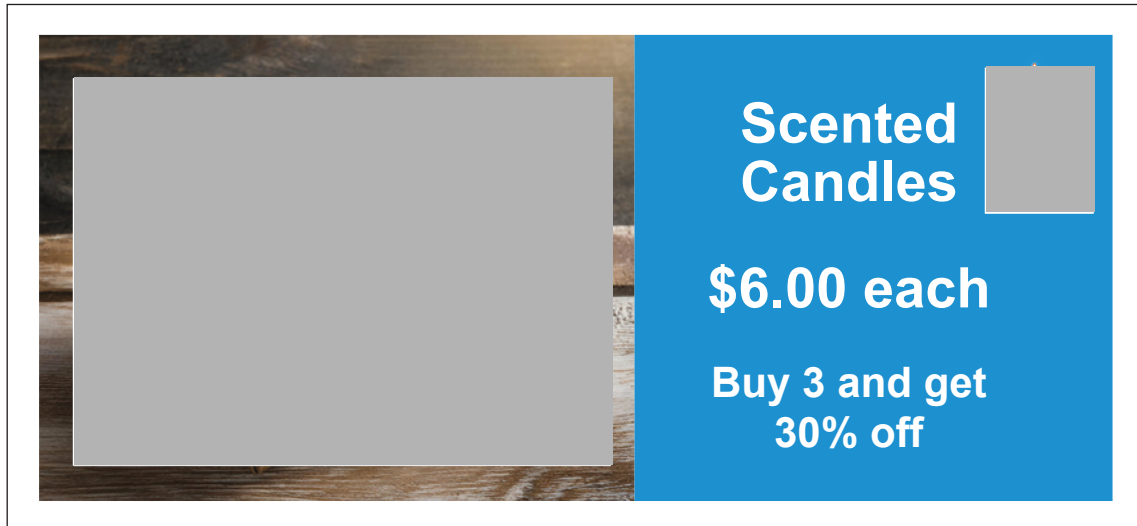
Ko te vaega tenei ko te Maketi o te Pakū Fakapitoa mo na Moligako Fakamanogi.



Ko Jules e fofou ke fakatau e ia ni moligako e lua ke fakamealofa ai ki to na tamana ma tona papa.

- (f) E tatau ke fakatau e Jules ni moligako e tolu ite 30% pakū, pe ko na moligako e lua ite taki \$6? Fakamatala tau tali kui ite fakaogā o ni galuega (calculations).

This is the Market Day special deal for Scented Candles.



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 tahi avanoa e manakomia ke tuhituhi kiei.
Tuhi na fehili kafari e manakomia.**

NUMELA
OTE FEHILI

Extra space if required.
Write the question number(s) if applicable.

[illegible]

**He tahi avanoa e manakomia ke tuhituhi kiei.
Tuhi na fehili kafari e manakomia.**

NUMELA
OTE FEHILI

Extra space if required.
Write the question number(s) if applicable.

QUESTION
NUMBER

Fakaamanakiga

Ko na lihoi mai na vaega ienei na puke ke fakaogāgia i tenei ahehi.

Fehili Tahī

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

Ika, https://as2.ftcdn.net/v2/jpg/02/78/07/69/1000_F_278076962_aGpb3OGG2ONzsRczAWb3pOCftIPOXySx.jpg

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

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

Tinoola, https://t4.ftcdn.net/jpg/07/48/96/47/240_F_748964785_HSRxCdwfaiJNY0gVm5o6dS3qXWTCCNrm.jpg

Fonukakau, <https://andyoucreations.com/blog/how-fast-do-pacific-green-sea-turtles-swim/>

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

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

Fuaga o te atigi fonu, 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

Fehili Lua

Tau o te fakiloga, <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>

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

Hiā fuaefa ma te gutu, <https://www.ikea.com/ie/en/p/vardagen-jar-with-tap-80452639/>

Fehili Tolu

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

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

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

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

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

Fehili Fa

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

Fuamita/huaū/penihini, <https://www.amazon.ca/Backlight-Adjustable-10-180ohm-240-30ohm%EF%BC%8CFuel-Motorcycle/dp/B09PG8519L>

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

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

Fehili Lima

Moligako, <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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Acknowledgements

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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>

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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/tackleman-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%EF%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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Numeracy 2024

32406 Apply mathematics and statistics in a range of everyday situations

Credits: Ten

OUTCOMES	
1	Formulate mathematical and statistical approaches to solving problems in a range of everyday situations.
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.

Check that this booklet has pages 2–43 in the correct order and that none of these pages is blank.

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.