Hei whakaoti mā te ākonga

Tau Ākonga ā-Motu (NSN) | | | | | | | | | | |

Te Tau Kura | | | | |

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See back cover for an English translation of this cover

32406M TE WĀHANGA 4

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

+

NZQA

Mana Tohu Mātauranga o Aotearoa
New Zealand Qualifications Authority

Te Whakamahinga Tātai, 2023

32406M Te whakamahi i te pāngarau me ngā tauanga kia ea ai ngā tono ā-whakamahinga tātai i te whānuitanga o ngā tūāhua

Ngā whiwhinga: Tekau

NGĀ HUA	
1	Te whakatakoto i ētahi ara o te pāngarau me te tauanga hei whakaoti panga i te whānuitanga o ngā tūāhua whai tikanga.
2	Te whakamahi i te pāngarau me ngā tauanga kia ea ai ngā tono ā-whakamahinga tātai i te whānuitanga o ngā tūāhua whai tikanga.
3	Te whakamārama i te māramatanga o ngā urupare ā-pāngarau, ā-tauanga hoki ki ngā tūāhua.

Tirohia kia kitea ai e rite ana te Tau Ākonga ā-Motu (NSN) kei runga i tō puka whakauru ki te tau kei runga i tēnei whārangi.

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

Tuhia ngā tuhinga mō ia tūmahi mā te whakakī i ngā āputa, mā te tīpako rānei (✔) i te whakautu tika.

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 2–35 kei roto i tēnei pukapuka, ka mutu, kāore tētahi o aua whārangi i te takoto kau.

Kaua e tuhi ki tētahi wāhi e kitea ai te kauruku whakahāngai (AE KORE E TUHI KI TĒNEI WĀHI). 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 whakatere waka i Te Moana-nui-a-Kiwa

I whakatere waka te Māori i ngā wāhi pēnei i Tahiti kia tau ki Aotearoa.

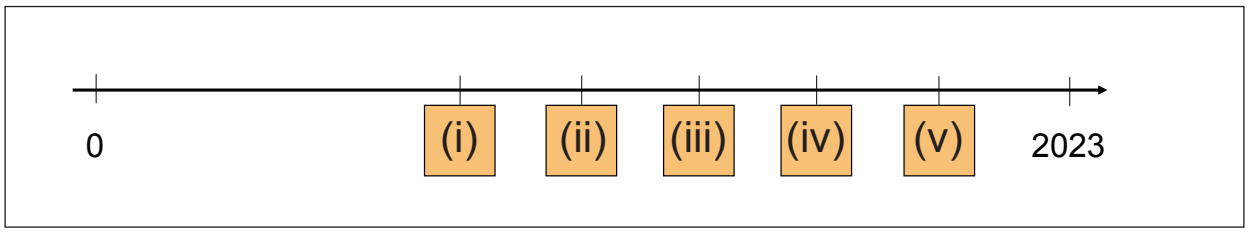
Tere mai ai rātou mā runga waka hourua, arā, mā ngā waka nui e rua nei ngā tīwai.

(a) Tīpakohia (✔) te ahunga kāpehu o te haerenga i Tahiti ki Aotearoa:

- ◯ Te uru
- ◯ Te tonga
- ◯ Te rāwhiti-mā-tonga
- ◯ Te raki-mā-uru
- ◯ Te tonga-mā-uru

Ko tēnei tau ko te 2023. I tae mai te Māori ki Aotearoa i te takiwā o te tau 1250.

He tata tērā ki te 800 tau o mua.



(b) Tīpakohia (✔) te whakautu e tohu ana i te wāhi o te tau 1250 i te rārangi wā:

◯ (i) ◯ (ii) ◯ (iii) ◯ (iv) ◯ (v)

QUESTION ONE: Navigating the Pacific

Māori sailed from places like Tahiti to settle in Aotearoa New Zealand.

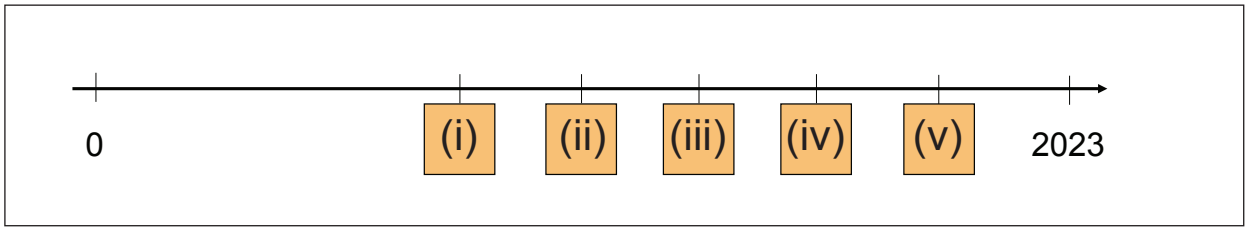
They came in waka hourua which are large canoes with twin hulls.

(a) Select (✔) the compass direction of the trip from Tahiti to Aotearoa New Zealand:

◯ West ◯ South ◯ South-east ◯ North-west ◯ South-west

This year it is 2023. Māori arrived in Aotearoa New Zealand around the year 1250.

That is almost 800 years ago.



(b) Select (✔) the answer that marks where 1250 would be on the timeline:

◯ (i) ◯ (ii) ◯ (iii) ◯ (iv) ◯ (v)

Ko te vaka me te waka ngā kupu o Poronēhia mō te poti.

Tērā tētahi vaka e 22 mita te roa. Tērā anō tētahi waka ama e pakupaku ana e 3.6 mita te roa.

Te vaka (waka)

Te waka ama e pakupaku ana

(c) E hia whakareanga te roa ake o te vaka i te roa o te waka ama e pakupaku ana?

E _____ whakareanga te roa ake

E whakaatu ana tēnei mahere i te ara i haere ai tētahi vaka i te terenga i Tāmaki Makaurau ki Hawai'i.

(d) Ina whakamahia te āwhata o te mahere, ko tēhea o ēnei whakatau tata e whai ake nei te mea tata katoa ki te tapeke o te tawhiti o te haerenga?

◯ e 5,000 km ◯ e 7,000 km ◯ e 9,000 km ◯ 11,000 km ◯ 13,000 km

Vaka and waka are Polynesian words for boat.

A vaka is 22 metres long. A small outrigger canoe is 3.6 metres long.

Vaka (waka)

Small outrigger canoe

(c) How many times longer is the vaka than the small outrigger canoe?

_____ times longer

This map shows the route taken by a vaka on a journey from Auckland to Hawai'i.

(d) Using the scale on the map, which of the following estimates is closest to the total distance of the trip?

○ 5,000 km ○ 7,000 km ○ 9,000 km ○ 11,000 km ○ 13,000 km

E anga ana te vaka ki te raki.

E karapoti ana ngā moutere iti e whitu i te vaka

(e) Ka anga te vaka ki tēhea moutere mehemea ka 135° te huringa whakatekaraka me te kore i neke? Tīpakohia (✔) tō whakautu i ngā kōwhiringa o raro nei.

A	B	C	D	E	F	G
○	○	○	○	○	○	○

Ka ruku kōura a Hine i te papa moana. 17 mita te tawhiti whakararo o te papa moana i te pae moana.

(f) E hia ngā mita o raro i te pae moana a Hine i tana piki kia 8 mita te tawhiti i te papa moana? Tuhia tō whakautu hei tau tōraro. Hei tauira ko te -2 e tohu ana i te 2 mita i raro i te pae moana:

_____ mita

The vaka is facing north.

Vaka surrounded by seven small islands

(e) Which island does the vaka face if it turns 135° clockwise without moving forward?
Select (✔) your answer from the choices below.

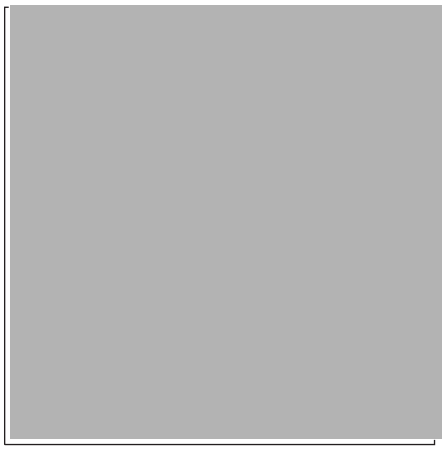
A	B	C	D	E	F	G
◯	◯	◯	◯	◯	◯	◯

Hine dives for kōura (crayfish) on the sea floor. The sea floor is 17 metres below sea level.

(f) How many metres below sea level is Hine after she rises 8 metres from the sea floor? Write your answer as a negative number. For example, −2 means 2 metres below sea level:

_____ metres

E toru ngā rerenga ka wehe i te taunga rererangi o Tāmaki Makaurau. E kī ana a Olioli, ina whakatauritea ki te roa o te rerenga ki Whītī me Niue, ko te rerenga ki Tonga te wā roa katoa.



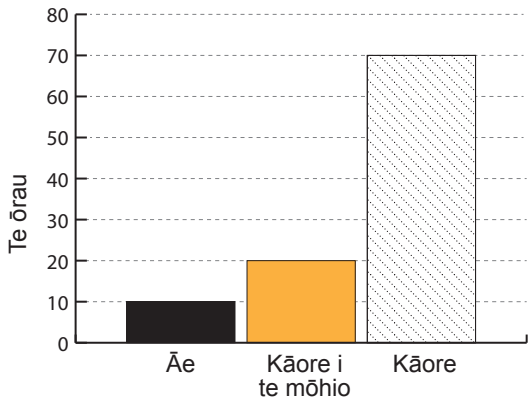
Te ūnga	Te wehenga (Te wā i Aotearoa)	Te taenga (Te wā i Aotearoa)
Nadi (Whītī)	09:55	13:00
Nuku'alofa (Tonga)	11:25	14:15
Alofi (Niue)	08:15	11:45

(g) Kei te tika rānei tā Olioli? Whakamahia ngā wā hei whakamārama i tō whakautu.

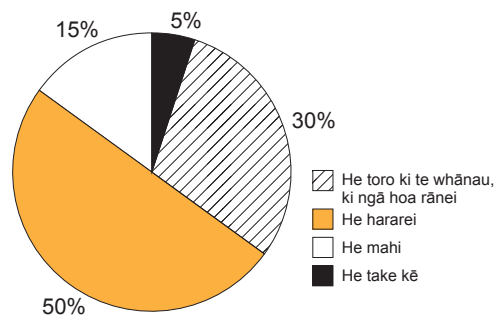
Ka uia ngā tāngata 1000 o Aotearoa, "E manako ana koe ki te toro atu ki Hāmoa i tēnei tau?"
Ko ngā tāngata i kī "Āe" ka uia, "He aha te take o tō haere ki Hāmoa?"

Ka whakaatu ēnei kauwhata i ngā raraunga.

Are you hoping to visit Samoa this year?



What is your reason for going to Samoa?



(h) Tīpakohia (✔) ngā tauākī katoa **e pono ana e pā ana ki te 1000 tāngata o Aotearoa**.
He nui ake i te whakautu kotahi.

- ◯ 10% o ngā tāngata e manako ana ki te toro atu ki Hāmoa i tēnei tau.
- ◯ E 200 ngā tāngata kāore i te mōhio mēnā rātou ka toro ki Hāmoa i tēnei tau.
- ◯ E 500 ngā tāngata e manako ana ki te toro ki Hāmoa ki te hararei.
- ◯ Kei tōna ⅓ o ngā tāngata e manako ana ki te toro ki Hāmoa i tēnei tau ka toro ki te whānau, ki ngā hoa rānei.

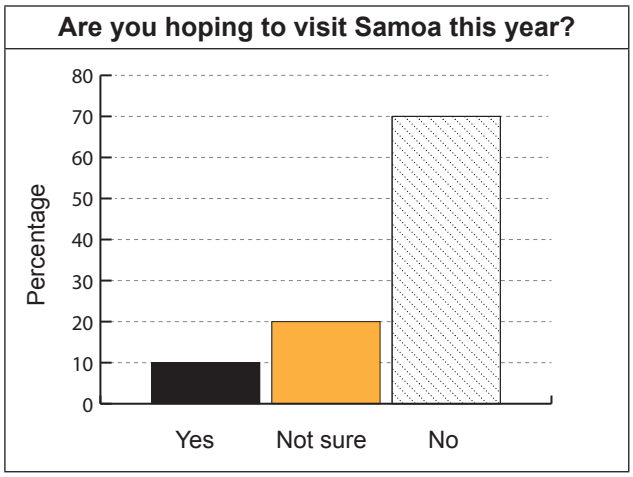
Three flights leave from Auckland airport. Olioli claims that compared to flight times to Fiji and Niue, the flight to Tonga takes the longest.

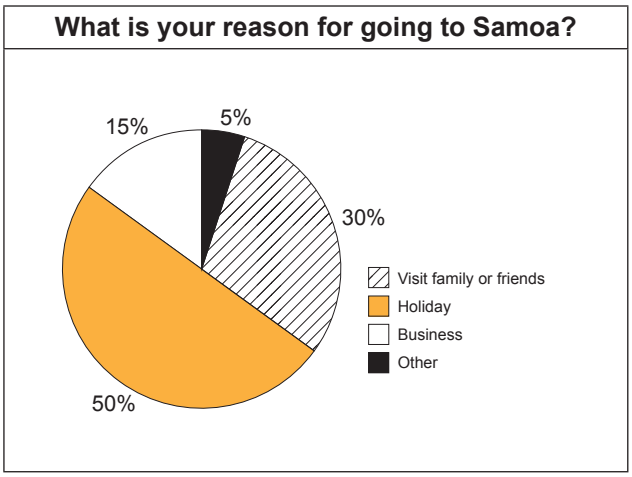
Destination	Leave (NZ time)	Arrive (NZ time)
Nadi (Fiji)	09:55	13:00
Nuku'alofa (Tonga)	11:25	14:15
Alofi (Niue)	08:15	11:45

(g) Is Olioli right? Use times to explain your answer.

1000 New Zealanders were asked, "Are you hoping to visit Samoa this year?" The people who said "Yes" were asked, "What is your reason for going to Samoa?"

These graphs show the data.





(h) Select (✔) all the statements that are **true about the 1000 New Zealanders**.
There is more than one answer.

- ◯ 10% of the people were hoping to visit Samoa this year.
- ◯ 200 people were not sure if they would visit Samoa this year.
- ◯ 500 people were hoping to visit Samoa to have a holiday.
- ◯ About ⅓ of the people hoping to visit Samoa this year were going to visit family or friends.

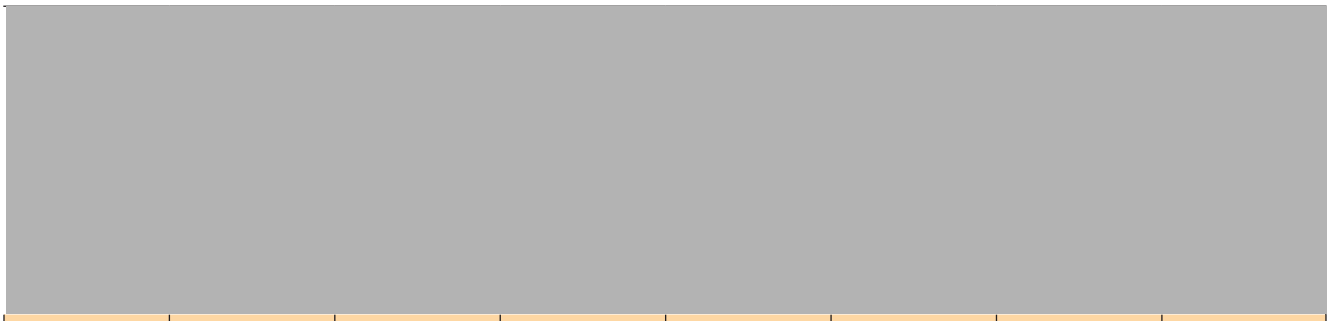
TE TŪMAHI TUARUA: Te poitūkohu

Kei konei tētahi hoahoa o tētahi papa poitūkohu 15 mita tōna whānui, e 28 mita tōna roa.

(a) E hia mita pūrua te horahanga o te papa poitūkohu?

_____ m^2

Anei ngā kaitākaro i tētahi tīma poitūkohu. Anei ō rātou tāroaroa, ā-mita nei.



Nia	Ani	Kendra	Sue	Mere	Lucy	Tania	Sina
1.57 m	1.6 m	1.94 m	1.7 m	1.78 m	1.8 m	1.61 m	E 2.01 m

(b) Ko ēhea kaitākaro e 2 me whakawhiti e raupapa ai ngā tāroaroa i te poto katoa ki te tāroaroa katoa?

Ko _____ me _____

E 40 meneti te roa o te kēmu poitūkohu. E pīrangi ana te kaiako kia ōrite te roa o te whai wā a ngā kaitākaro e 8 katoa ki te papa, engari e 5 anake ka āhei ki te papa i te wā kotahi.

E ai ki te kaiako, me 30 meneti te roa o te whai wā a ia kaitākaro ki te papa.

(c) Kei te tika rānei tāna? Whakamahia ngā tātaitanga hei parahau i tō whakautu.

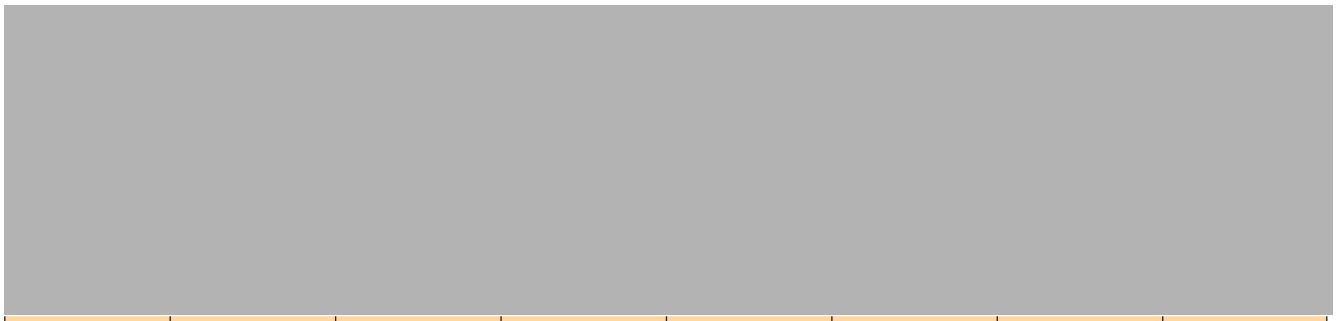
QUESTION TWO: Basketball

Here is a diagram of a basketball court that measures 15 metres in width and 28 metres in length.

(a) What is the area of the basketball court in square metres?

_____ m^2

Here are the players in a basketball team. Their heights are given in metres.



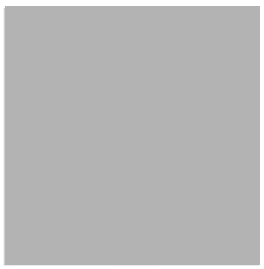
Nia	Ani	Kendra	Sue	Mere	Lucy	Tania	Sina
1.57 m	1.6 m	1.94 m	1.7 m	1.78 m	1.8 m	1.61 m	2.01 m

(b) Which two players need to swap places so that the heights are in order, shortest to tallest?

_____ and _____

A game of basketball is 40 minutes long. The coach wants all 8 players to get equal time on court, but only 5 players can be on at one time.

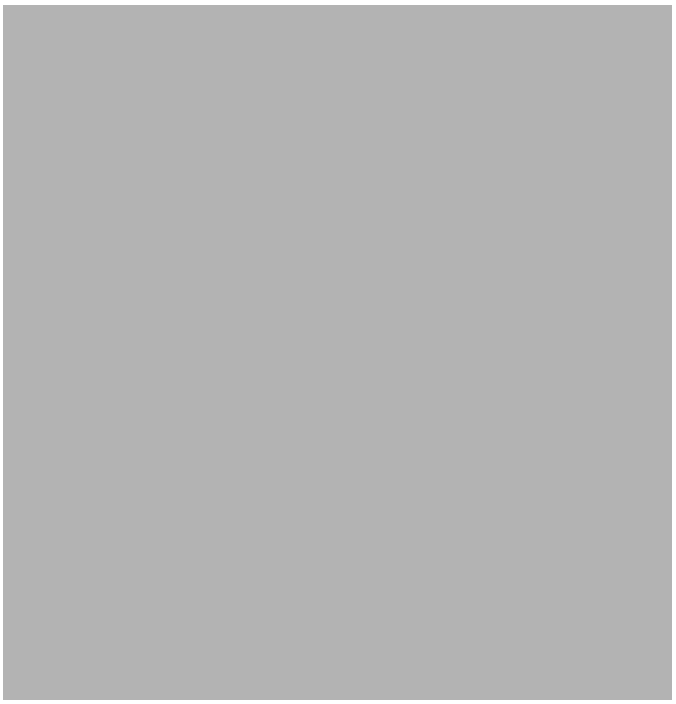
The coach thinks that each player should get 30 minutes on the court.



(c) Is he right? Use calculations to justify your answer.

Ko te koki pai katoa kia kuru hūpeke, ko te 48°.

(d) Porowhitangia ○ ki te ata o raro nei te **pane o te pere** e tata katoa ana ki taua koki.



Ka tākaro poitūkohu a Lucy.

E 50% te toharite o te pāpātanga angitu o ana kuru tautuku i ngā kēmu katoa kua tākarotia e ia.

E rua ngā kuru tautuku e kurua ana e Lucy, ko tētahi ka whai tonu i tētahi atu. E tino whakapono ana ia ka uru te poi i tētahi o ana kuru.

Ko Lucy e kuru tautuku ana

(e) Ki ō whakaaro, kei te tika tāna? Whakamāramatia tō whakautu mā te whakamahi i ngā whakaaro e pā ana ki te tūponotanga.

The best angle for a jump shot is 48°.

(d) In the image below, circle the **arrowhead** that is closest to that angle.

Lucy plays basketball.

Including all games she has played, her average success rate for free throws is 50%.

Lucy is taking two free throws, one after the other. She is very confident that one of her shots will go in.

Lucy taking a free throw

(e) Do you think she is right? Explain your answer using ideas about chance.

E whakaatu ana te kauwhata i ngā hākinakina arotini katoa i waenga i ngā ākonga i Aotearoa i te tau 2022.

(f) E hia te tapeke āwhiwhi o te tokomaha o ngā tama me ngā kōhine e tākaro poitūkohu ana i te tau 2022?

The graph shows the most popular sports among students in Aotearoa New Zealand in 2022.

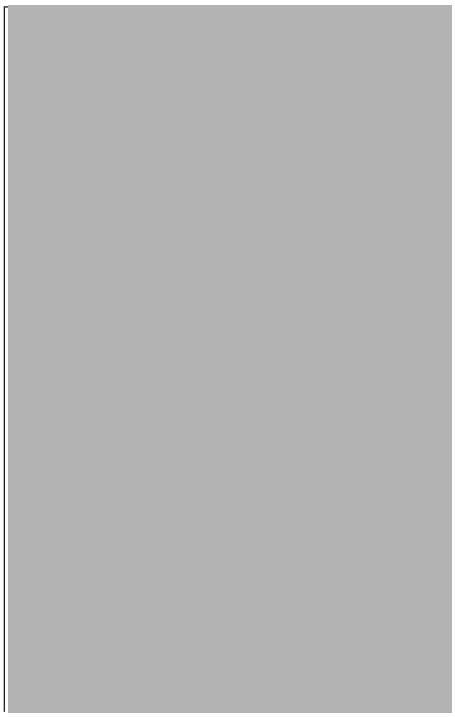
(f) What was the approximate total number of boys and girls playing basketball in 2022?

TE TŪMAHI TUATORU: *Shave for a Cure*

Kei te heu a Mia i ōna makawe kia kohi pūtea hei tuku ki tētahi rōpū ohaoha.

Ko tōna tāroaroa, ko te 1.72 mita.

Ko te tawhiti i ōna makawe ki te papa, ko `te 89 mitarau.



Mia

(a) E hia mita te roa o ngā makawe o Mia?

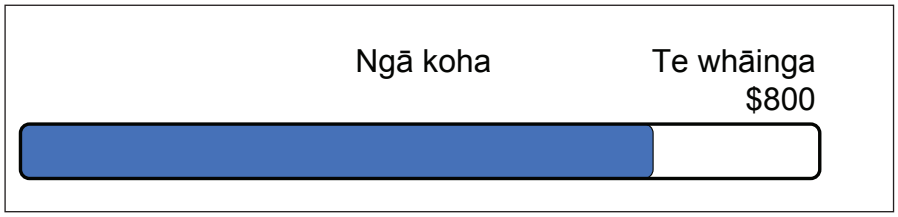
_____ m

Kei konei ngā kōwhiringa e toru hei takoha ki a *Shave for a Cure*.

(b) E hia ngā takoha ki *Tētahi waka ki te hōhipera* me utu e ōrite ai ki te nui o ngā takoha **10** ki *Tētahi tangata tautoko*?

_____

E whakaatu ana tēnei pou i ngā takoha kua whakawhiwhia ki a Mia.



(c) Kei tōna hia tāra nei ngā takoha kua whakawhiwhia ki a Mia?

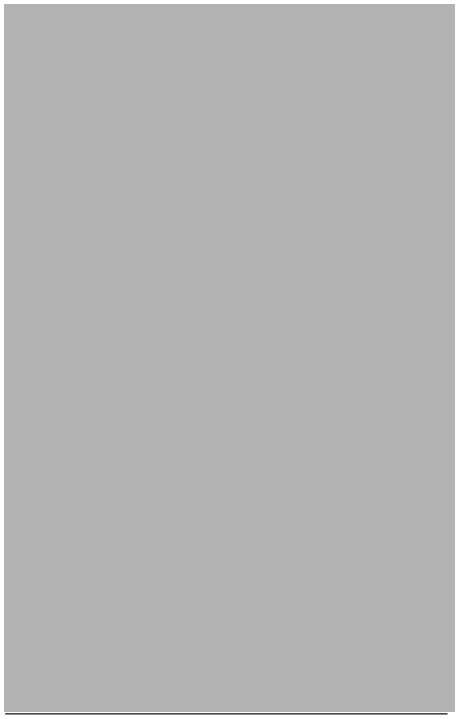
$ _____

QUESTION THREE: *Shave for a Cure*

Mia is shaving her hair to raise money for charity.

She is 1.72 metres tall.

The distance from her hair to the ground is 89 centimetres.



Mia

(a) What is the length of Mia's hair in metres?

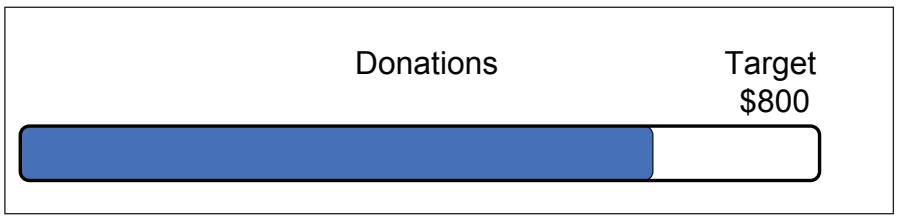
_____ m

Here are three options for donating to *Shave for a Cure*.

(b) How many *Transport to the hospital* donations will raise the same amount as **10** *Support person* donations?

_____

This bar shows the donations that Mia has received.

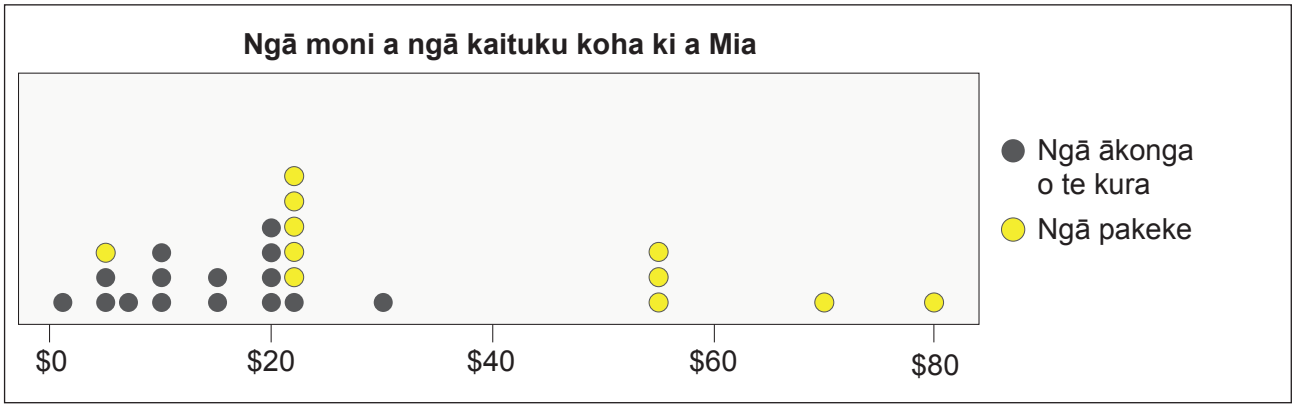


(c) About how much has Mia received in donations?

$ _____

E whakaatu ana te kauwhata i te nui o ngā takoha a ngā kaituku takoha ki a Mia.

He rerekē te tae o ngā moni e tukuna ana e ngā ākonga o te kura i te tae o ngā moni e tukuna ana e ngā pakeke.



(d) He pēhea te rerekē o te nui o ngā moni e takohangia ana e ngā ākonga o te kura i te nui e takohangia ana e ngā pakeke? Whakamahia ngā nama i te kauwhata hei tautoko i tō whakautu.

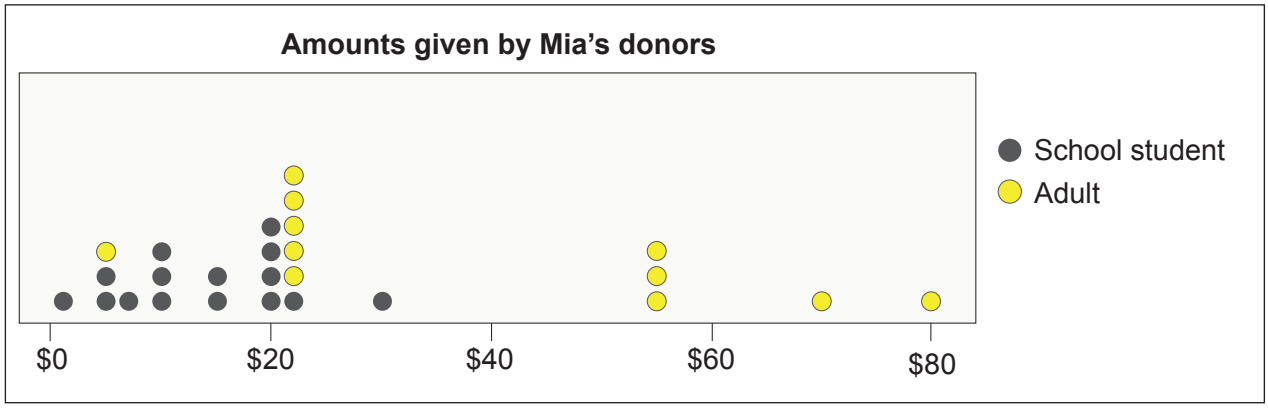
E taea ana e Mia ōna makawe te hoko ki tētahi whare mahi uru whakapīwari.

(e) Ki te hokona e Mia ngā mitarau e 70 o ōna makawe, e hia ngā moni ka hoatu ki a ia?

$ _____

The graph shows the amounts given by Mia's donors.

The amounts for school students and adults are shown in different colours.



(d) How are the amounts donated by school students different from the amounts donated by adults? Use numbers from the graph to support your answer.

Mia can sell her hair to a wig factory.

(e) If Mia sells 70 centimetres of her hair, how much money will she make?

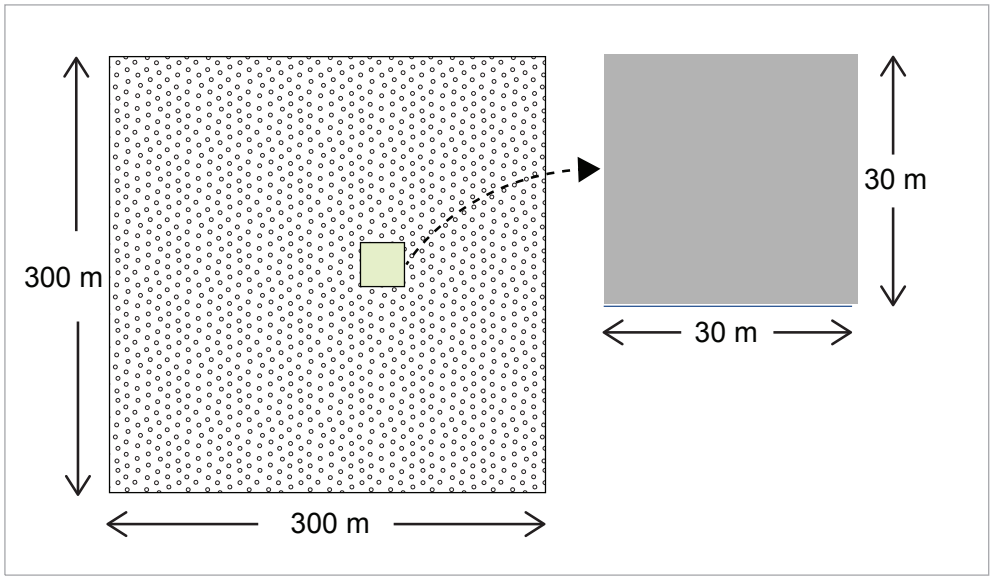
$ _____

TE TŪMAHI TUAWHĀ: He kau

E 300 mita te roa o ngā taha e whā o te pātiki o tētahi kaipāmu.

E 5 ngā kau kei tētahi wāhanga, e 30 mita te roa o ōna taha e whā.

He ōrite te tawhiti o ngā kau, tētahi i tētahi, puta noa i te pātiki.



(a) Whakatau tatahia te maha o ngā kau i te pātiki whānui:

_____ ngā kau

Anei tētahi pikitia o Teihi.

(b) Ka kite a Teihi i tōna whakaata i te wai.

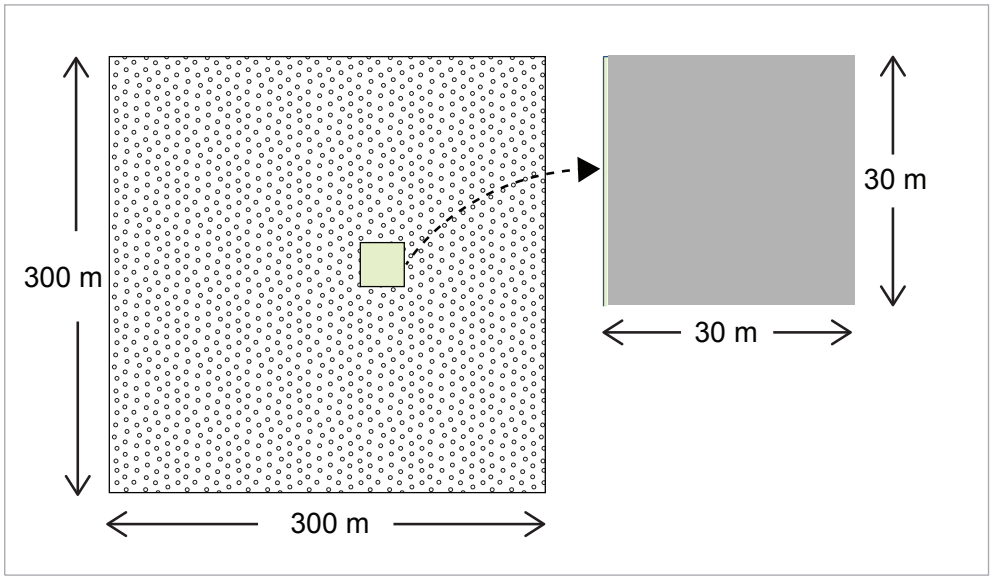
Mai i ngā kōwhiringa o raro nei, tīpakohia (✔) te whakaahua e whakaatu ana i te whakaata ka kitea e Teihi.

QUESTION FOUR: Cows

The farmer's field measures 300 metres by 300 metres.

In a 30 metre by 30 metre section there are 5 cows.

The cows are evenly spread throughout the field.



(a) Estimate how many cows there are in the whole field:

_____ cows

Here is a picture of Daisy.

(b) Daisy sees her reflection in the water.

From the options below, select (✔) the picture that shows the reflection that Daisy sees.

Ko te toharite o ngā tāwhai ka hīkoitia e te kau miraka i ia rā, ko tōna 12,000. Ko te tawhiti o ia tāwhai, ko tōna 1.6 mita.

E whakapae ana te kaipāmu, ka 20 km te roa o te hīkoi a tēnā, a tēnā o ana kau i ia rā.

(c) Kei te whai take rānei tana whakapae? Tuhia tētahi tātaitanga e tautoko ana i tō whakautu.

Ko te miraka ka puta i te kau nei, i a Mooloo, ko tōna 35 rita i ia rā.

Ka pau i tētahi whānau ngā rita e 3 i ia 2 rā.

(d) E hia ngā rā ā-āwhiwhi nei e pau ai i taua whānau ngā rita e 35 o te miraka?

_____ ngā rā

On average, a dairy cow walks about 12,000 steps per day. Each step measures about 1.6 metres.

A farmer claims that each of her dairy cows walks 20 km per day.

(c) Is her claim reasonable? Write a calculation that supports your answer.

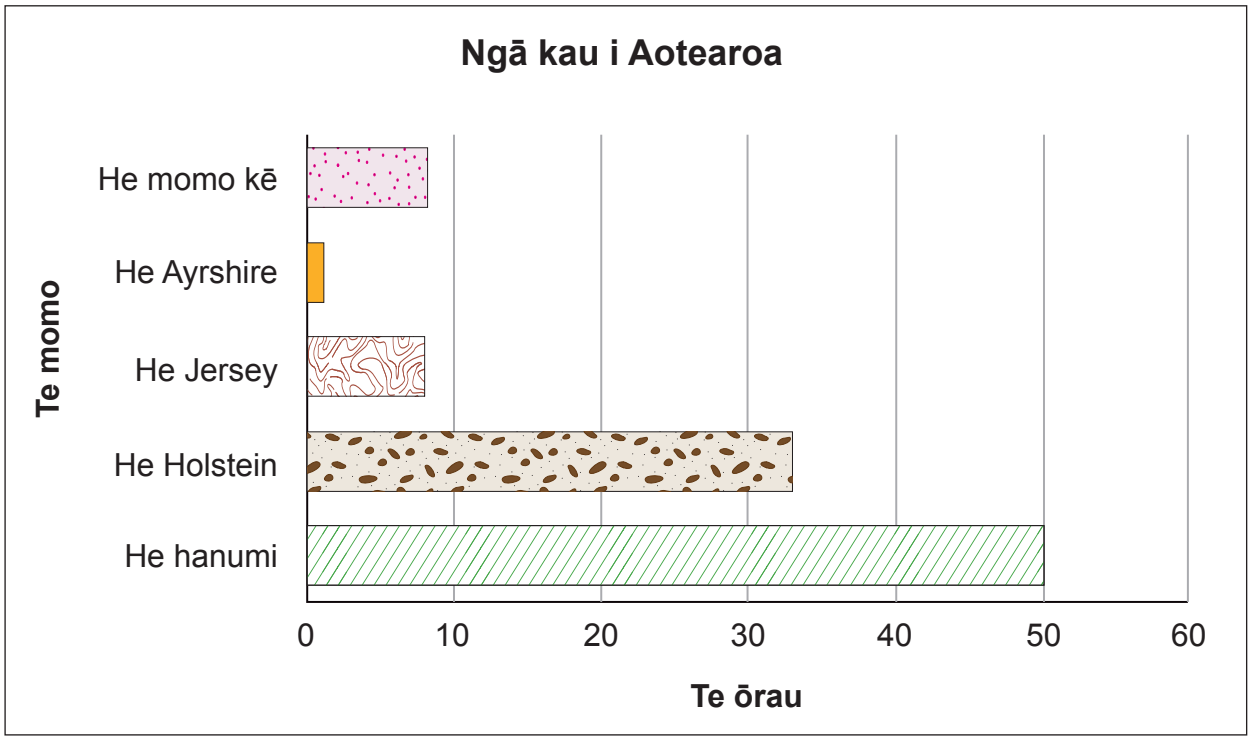
Mooloo, a cow, produces about 35 litres of milk per day.

A family uses 3 litres of milk every 2 days.

(d) Approximately how many days will 35 litres of milk last that family?

_____ days

Kei tōna 6 miriona te maha o ngā kau i Aotearoa.



(e) E ai ki te kauwhata o runga nei, he **pēhea te maha** ā-āwhiwhi nei o ngā kau Jersey i Aotearoa?

_____ ngā kau Jersey

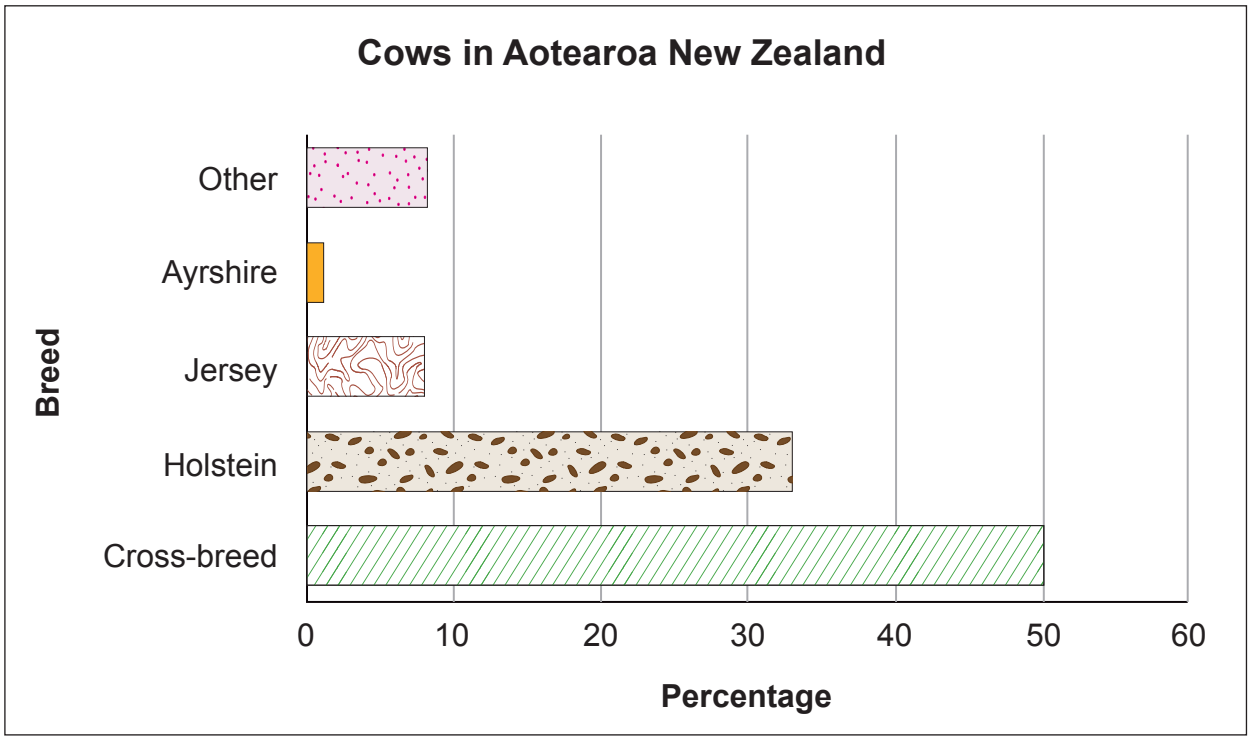
Kei te kāhui kau a te kaipāmu ngā kau Holstein e 300 me ngā kau Jersey e 200.

Kāore e kitea ana he tauira e pā ana ki te momo kau ka tae tuatahi kia kutētēhia.

(f) E kī ana te kaipāmu, e 60% te tūpono ka tae tuatahi atu te kau Holstein. Kei te tika rānei tāna?

Whakamahia he hautau, he tau ā-ira rānei ki te whakamārama i tō whakautu.

There are about 6 million cows in Aotearoa New Zealand.



(e) Looking at the graph above, about **how many** cows in Aotearoa New Zealand are Jersey cows?

_____ Jersey cows

The farmer's herd has 300 Holstein cows and 200 Jersey cows.

There is no pattern to which cow turns up first to be milked.

(f) The farmer says that there is a 60% chance that the first cow is a Holstein. Is she right?

Use fractions or decimals to explain your answer.

TE TŪMAHI TUARIMA: Te wā pōti

Mā te pōti e whakatau te hunga me ngā rōpū ka uru ki te pāremata.

Tū ai ngā pōtitanga i Aotearoa i ia toru tau.

He tau pōti te tau 2023.

Ngā whare pāremata, i Te Whanganui-a-Tara

(a) He tau pōti rānei te tau 1987? Whakaatuhia ngā whiriwhiringa ka whakamahia e koe ki te whakautu i tēnei pātai.

E 72 ngā rohe pōti i Aotearoa.
Ka whai wāhi ki ērā ngā rohe pōti Māori e 7.

Kei tōna 3,900,000 te tokomaha ka āhei ki te pōti.

(b) Tīpakohia (✔) te whārite e whakaatu ana i te tau toharite o ngā tāngata kei ia rohe pōti:

- $72 \times 3{,}900{,}000$ ◯
- $3{,}900{,}000 + 72$ ◯
- $3{,}900{,}000 - 72$ ◯
- $72 \div 3{,}900{,}000$ ◯
- $3{,}900{,}000 \div 72$ ◯

Te mahere o ngā rohe pōti o Aotearoa

QUESTION FIVE: Voting time

Voting determines the people and parties that will be in parliament.

Elections in Aotearoa New Zealand happen every 3 years.

2023 is an election year.

Parliament buildings, Wellington

(a) Was 1987 an election year? Show the working you use to answer this question.

There are 72 electorates in Aotearoa New Zealand. That includes 7 Māori electorates.

About 3,900,000 people can vote.

(b) Select (✔) the equation that gives the average number of people per electorate:

- 72 × 3,900,000 ◯
- 3,900,000 + 72 ◯
- 3,900,000 – 72 ◯
- 72 ÷ 3,900,000 ◯
- 3,900,000 ÷ 72 ◯

Electorate map of Aotearoa New Zealand

Ko te rōpū tōrangapū tētahi huinga o te tangata e āhua ōrite nei ngā whakaaro o tētahi ki ō tētahi.

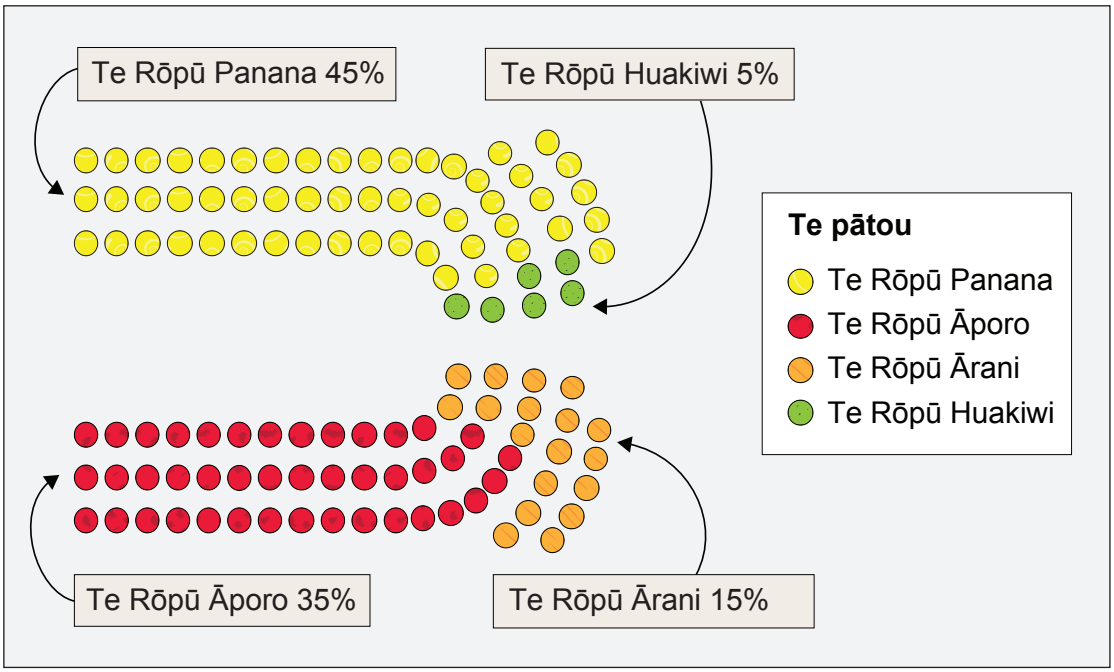
Ka riro i te Rōpū Āporo te 35% o ngā pōti, nō reira ka nōhia e rātou te 35% o ngā tūru 120 i te pāremata. Ko te 42 tūru tērā.

(c) E hia ngā tūru ka nōhia e te Rōpū Ārani?

_____ ngā tūru

E tū ai te Kāwanatanga, me mahi tahi ngā rōpū ki te whakahuihui i tētahi kāhui e kīia nei he haumitanga.

Ko te ōrau o ngā tūru i te pāremata me noho e te kāhui, ko **tua atu i te 50%**.



(d) Tīpakohia (✔) ngā kāhui katoa mā reira e tū ai te Kāwanatanga:

- ◯ Te Rōpū Panana me te Rōpū Ārani
- ◯ Te Rōpū Āporo me te Rōpū Ārani
- ◯ Te Rōpū Huakiwi me te Rōpū Panana
- ◯ Te Rōpū Āporo me te Rōpū Panana
- ◯ Te Rōpū Ārani me te Rōpū Huakiwi
- ◯ Te Rōpū Ārani, te Rōpū Huakiwi me te Rōpū Āporo

A political party is a group of people with similar ideas.

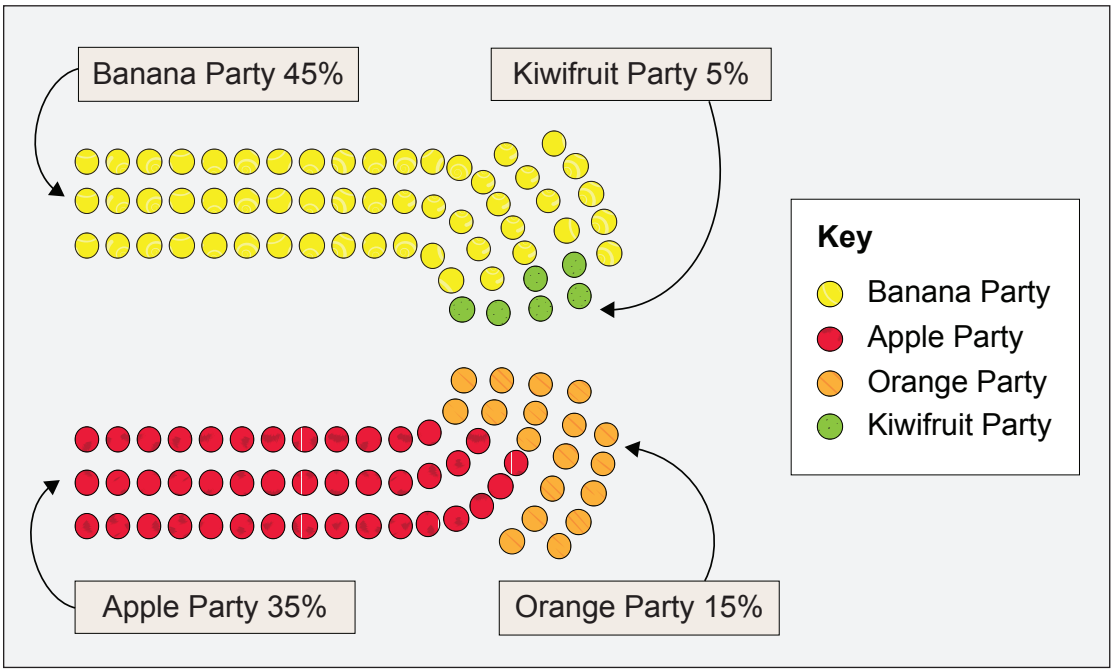
The Apple Party receives 35% of votes, so they get 35% of the 120 seats in parliament. That's 42 seats.

(c) How many seats does the Orange Party get?

_____ seats

To be the Government, parties need to work together and form a team called a coalition.

The team must have **over 50%** of the seats in parliament.



(d) Select (✔) all the teams that could form the Government:

- ◯ Banana and Orange Parties
- ◯ Apple and Banana Parties
- ◯ Apple and Orange Parties
- ◯ Orange and Kiwifruit Parties
- ◯ Kiwifruit and Banana Parties
- ◯ Orange, Kiwifruit, and Apple Parties

E rua ngā kōwhiringa ka oti i te kaituku pōti. Ka pōti ia i tētahi **rōpū**, ā, ka pōti hoki ia i tētahi **tangata**.

Ko tētahi whiriwhiringa raupapa-kore ko te pōti i te Rōpū Panana me Isaia Finaki. Ko tētahi atu ko te pōti i te Rōpū Ārani me Henry Chote.

	Te Pōti ā-Rōpū	Te Pōti ā-Tangata
	Te Rōpū Āporo	CHOTE, Henry
	Te Rōpū Panana	FINAKI, Isaia
	Te Rōpū Huakiwi	JONES, Tayla
	Te Rōpū Ārani	NUI, Rawiri
		PEREZ, Joe
		WANG, Chris

(e) E hia katoa ngā whiriwhiringa raupapa-kore ka taea i tēnei puka?

_____ ngā whiriwhiringa raupapa-kore mō te pōti

Every voter in Aotearoa New Zealand makes two choices. They vote for a **party**, and they vote for a **person**.

One combination is to vote for the Banana Party and Isaia Finaki. Another is the Orange Party and Henry Chote.

Party Vote	Person Vote
Apple Party	CHOTE, Henry
Banana Party	FINAKI, Isaia
Kiwifruit Party	JONES, Tayla
Orange Party	NUI, Rawiri
	PEREZ, Joe
	WANG, Chris

(e) How many different voting combinations are possible on this form?

_____ voting combinations

He whārangi anō ki te hiahiatia.
Tuhia te tau tūmahi mēnā e hāngai ana.

TE TAU TŪMAHI

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

QUESTION NUMBER	

He mihi

Kua panonitia ētahi āhuatanga i ngā mātāpuna e whai ake nei hei whakamahinga i tēnei aromatawai:

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Ngā matauri o ngā kaitākaro poitūkohu, https://www.shutterstock.com/image-vector/women-basketball-vector-background-silhouette-set-148018928
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Te tohu o 'Māu e kōwhiri', https://www.vectorstock.com/royalty-free-vector/hand-holding-heart-icon-trust-and-care-symbol-vector-39784577
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Acknowledgements

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

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English translation of the wording on the front cover

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School Code | | | | |

32406M TERM 4

Numeracy 2023

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

Credits: Ten

32406M

	OUTCOMES
1	Formulate mathematical and statistical approaches to solving problems in a range of meaningful situations.
2	Use mathematics and statistics to meet the numeracy demands of a range of meaningful situations.
3	Explain the reasonableness of mathematical and statistical responses to situations.

Enter your National Student Number (NSN) and School Code in the box at the top of this page.

You should attempt ALL the questions in this booklet.

Answer all parts of each question by filling in the gaps or selecting (✔) the correct answer.

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 2–35 in the correct order and that none of these pages is blank.

Do not write in any cross-hatched area (DO NOT WRITE IN THIS AREA). This area will be cut off when the booklet is marked.

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