



Te Kaupae 1 Te Pāngarau 2024

92067 Te whakamahi tikanga taurangi hei whakaoti rapanga

Ngā whiwhinga: E 5

Kairangi	Kaiaka	Paetae
Ka whakamahi tikanga taurangi me ngā whakaaro waitara hei whakaoti rapanga.	Ka whakamahi tikanga taurangi me ngā whakaaro tūhonohono hei whakaoti rapanga.	Ka whakamahi tikanga taurangi hei whakaoti rapanga.

HE TAUAROMAHĪ

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Tā te ākonga mahi (Kairangi/Excellence)

Te Maumahara

1.3 Pāngarau 92067

Te whakamahi tikanga taurangi hei whakaoti rapanga

Rangahau

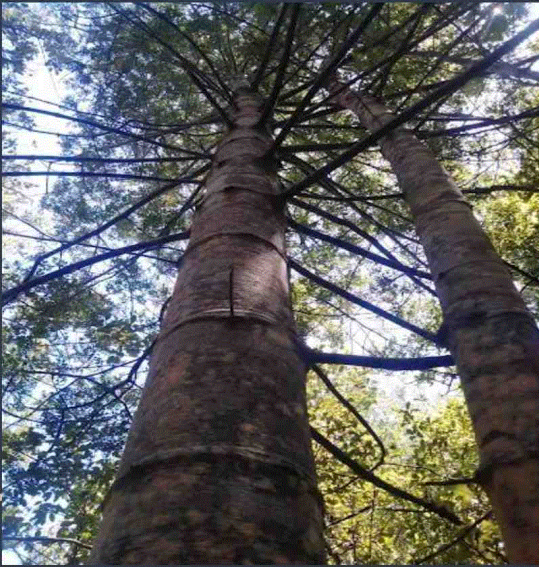


Mahi Muka:

E rua nga momo harakeke mo nga mahi rereke, Ko te harakeke tuatahi ko te harakeke raranga ka whakamahia mo nga mea pera ki nga ipu, kete me nga whariki rereke. Ko te harakeke tuarua ko te harakeke muka, ka whakamahia mo nga mea pera ki nga taura, kakahu, piupiu me nga kupenga.

Ko te take ka whakamahia te harakeke muka hei mahi i nga mea pera ki nga kakahu, ka kore e whati i te wa e ngana koe ki te hanga i nga whitau paku (muka). Ki te whakamahi i te harakeke raranga ka pakaru. E ahei ana koe ki te hanga ahi mai i te muka o te harakeke.

Rangahau



Tanekaha:

Ko te rakau Tanekaha e tino rata ana ki te huarere mahana, koira te take ka kitea koe i te maha o enei rakau ki etahi o nga wahi o te Ika a Maui. Ko tenei rakau tetahi o nga rakau pakari, pingore hoki. I whakamahia hei rakau ahi, hei rongoa, hei hanga taputapu, hei hanga kara hoki.

He Pukenga tawhito te mahi raranga, ka whakamahia i te harakeke kia hanga i nga mea rereke pera ki nga kete nga whariki me nga piupiu. Engari e maha nga momo tae rereke i whakamahia e o tatou tipuna hei whakarakei i nga mahi raranga.

Ko tetahi o nga kara he ahua whero me te parauri. I whakamahia o matou tipuna i te rakau Tanekaha hei hanga i tenei tae. Ma te whakamahi i te kiri o te rakau ka paera ki roto i te wai, ka huri te tae o te wai, ka noho te mahi raranga ki te wai, a ka huri te tae.

He aha te Kūmete?



Ko te kūmete tētahi momo ipu i whakamahia e o mātou tīpuna kia paera i te wai, whakawera hoki i te wai hei whakamahia mo te waitae i te muka. He porowhita te āhua, a i hangaia mai i te rakau maori pēra ki ngā tōtara, Manuka me ngā rākau Tī Koūka. I whakamahia hoki hei ipu kai. I hangaia i te kumete na te kore o nga rawa o enei ra.

Tukanga waitae

- Me hanga muka koe mai te harakeke muka, kua te harakeke raranga i te mea ka whati te rau.
- Waiho i ngā toka puia ki te ahi mo te ono hāora kia wera ai ngā toka puia.
- Tikina i tētahi kūmete a whakakīkī i te wai.
- Rau atu i ngā toka wera ki roto hei paera i te wai, i te wā ka makariri nga toka tīnīhia ki tētahi atu toka wera.
- I te wā kua paera te wai tangohia i ngā toka.
- A rau atu i te kiri o te rākau Tanekaha waiho ki roto i te wai.
- Rau atu te muka ki te waitae kia tīni i te kara.

Pātai Tuhura

Patai: he aha ngā inenga o te tapawha roa, nui rawa te kītanga?

Huarahi Tuhura

I titro au ki nga tauira i whakaatu mai a Koka (nga pikitia me nga whitiata kumete). A i whakatau au i te teitei, te roa me te whānui o te kūmete.

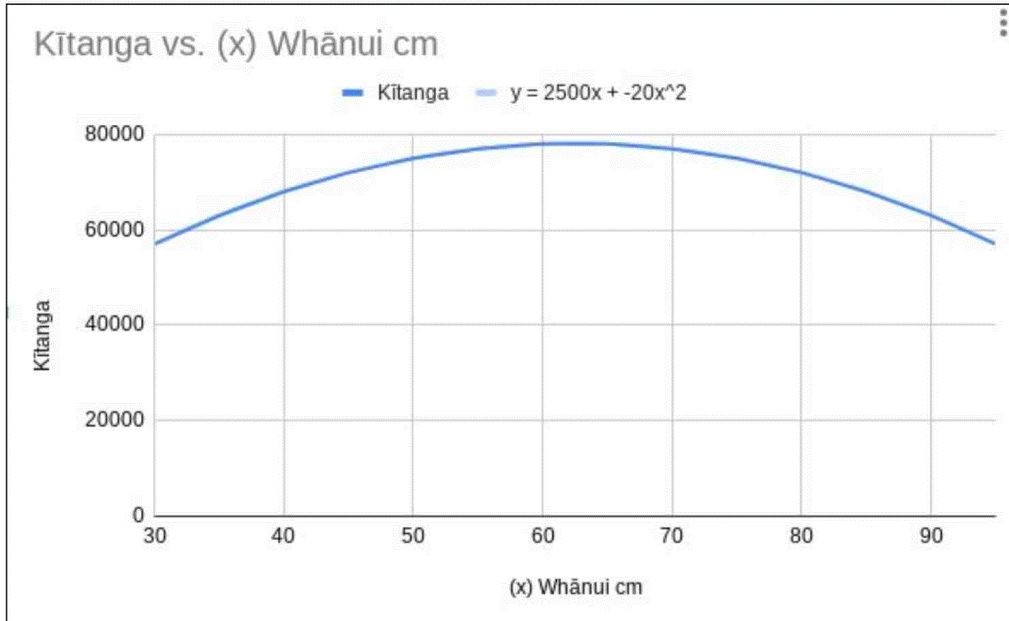
- Te Roa (95cm)
- Te Whānui (30cm)
- Te teitei (20cm)

Ko te take i pēnei te whakatau o ngā inenga whānui me te whāroa, kia taea te maha o te muka ki te ō ki roto i te kumete hei hanga i tētahi tarapouahi (he momo kākahu kua hangaia mai i te muka o te harakeke), a, kia ō hoki ngā toka puia ki te kūmete. I whakatau i te inenga teitei ki tētahi inenga āhua paku kia kore te wā hei paera i te wai e roa, koira te take e 20cm noa iho te teitei.

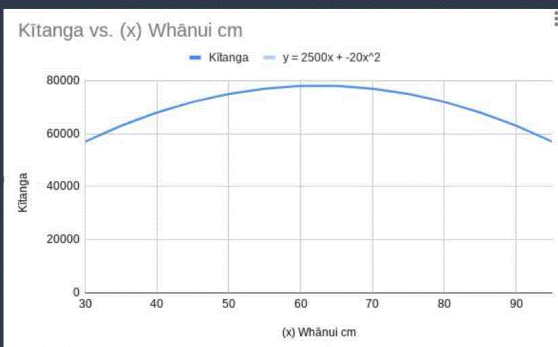
I runga i tēnei whārangi ka kimi tātou i ngā inenga mo te tapawhā roa nui ake te kītanga o te wai. Ko te pātai (He aha ngā inenga mo te tapawhā roa, nui rawa te kītanga.

Whāroa (x)	whānui	Whāroa x Whānui x Teitei(20cm) = Kitanga
95 cm	30 cm	57000 cm ³
90 cm	35 cm	63000 cm ³
85 cm	40 cm	68000 cm ³
80 cm	45 cm	72000 cm ³
75 cm	50 cm	75000 cm ³
70 cm	55 cm	77000 cm ³
65 cm	60 cm	78000 cm ³

Kauwhata



Whakautu mo te pātai tuhura



Ko tōku whakatau mo te pātai “he aha ngā inenga o te tapawha roa rahi rawa te kītanga”. Mai i ngā mahi tūtohi me ngā mahi kauwhata i te whārangi o mua i tēnei whārangi.

Ko te kītanga nui ake mo te kūmete ko te 60cm ki te 65cm te roa, a, 60cm ki te 65 whānui ano hoki.

Ko tahi ana ke te raru mēna ka hiahia koe ki te whakamahi i ēnei inenga mo te kītanga o tō kūmete.

Ko te āhua o tō kūmete ka pēra ki tētahi tapawhā kāore te tapawhā roa. Ko te raru o tēnei ka pupuri te kūmete i te maha o te wai engari ko te muka me panaia ki roto i te kūmete. Mā te kairaranga e tīwhiri mēna e hiahia ana ki te maha o te wai, maha o te muka rānei. Engari ko te kūmete pai mo te kītanga o te wai ko te 60 - 65cm whānui me te whāroa hoki.

Te Maha o te Muka Ka Uru Ki Te Kumete 1

Ki te hoki mātou ki ngā whārangi o mua, ka kite ko te kūmete pai ake mō te kītanga o te wai ko te 60 - 65cm whānui me te whāroa, a, he 20cm te teitei. Ko te kītanga o te wai i roto i ēra inenga ko te 78,000cm³.

Engari ki te whakakī koe i te katoa o te kūmete nei ki te wai, ka whakaru hoki i ngā toka me te muka, kāore e kore ka maringi mai te wai i te kūmete na te maha o ngā mea kei roto. Kia kore te wai e puta mai i te kūmete, me whakakī i te haurua noa iho o te kūmete ki te wai hei waiho i ētahi wāhanga mo te muka me ngā toka.

Kia kimi i te kītanga wai mo te haurua o te kūmete: Me whakarau i ngā (cm) whāroa ki ngā (cm) whānui, whakarau ano ki ngā (cm) teitei. Engari nā runga i te mea e hauruatia ana mātou i te kītanga wai, me haurua i ngā (cm) teitei.

Te Maha o te Muka Ka Uru Ki Te Kumete 2

65cm whānui x 60cm whāroa x 10cm (haurua o te 20) teitei = 39,000. Ki te whakakī i te haurua o te teitei o te kūmete 65cm whāroa, 60cm whānui, 20cm teitei ko te kītanga ka 39,000cm³.

Ko te toenga o te kītanga (39,000 + 39,000 = 78,000) ko te 39,000 cm³ ka whakakī i te muka.

Kia kore te muka e puta i te kūmete tēra pea me heke ki te 2cm poto ake. Hei kimi i te kītanga o tēra.

Ko te 20cm te teitei hauruatia 20 rītua 2 = 10cm te teitei tango 2cm mai i te taumata 10cm tango 2cm = 8cm

65cm whāroa x 60cm whānui x 8cm teitei = 31,200cm³

Ko te kītanga pai mo te wai ko te 39,000cm³. Ko te kītanga pai mo te muka ko te 31,200cm³. Ko te toenga (7,800cm³) ka noho me te kore wai me te muka kia kore e maringi mai i te kūmete.

Pātai Harakeke

E hia ngā rau o te tipu? I te wā ka whakatō koe i te harakeke te nuinga o te wā e 5 ki te 7 ngā rau. Ko tahi te rau kei waenganui, e mohio whanuitia ngā kai raranga kia kore e tapahi i tēnei rau o waenga kei mate te pā harakeke, ko te ingoa mo te rau kei waenganui ko te rito. Ko te toenga o ngā rau kei ngā taha o te rito hei arai i te rito. E mōhio hoki ana ngā kai raranga, me whai 5 tau te pā harakeke ki te tipu i mua i te tapahi rau.

E hia ngā rau ka tipu ia tau? He rerekē ngā momo harakeke, engari i roto i tēnei paerewa kei te whakamahi mātou i te pā harakeke muka. He rerekē ngā wāhi tipu o ia tangata na reira ka rerekē ngā nama. I uiui atu au ki a Koka Tui ko tana whakatau, ka āhua 15 ki te 30 ngā rau ia tau mo te pā harakeke muka.

Ngā tātainga mo te whārite

E hia nga rau harakeke ka tipu ia tau"

E 5 rau i te timatanga o te whakatō i te tipu.

Ka 15 nga rau ka tipu ia tau. (I tīwhiri au i te 15 rau nā te mea tēra pea ka kore e nui ake i te 15 ngā rau ia tau).

$$y \text{ (Rau)} = 15x \text{ (tau)} + 5$$

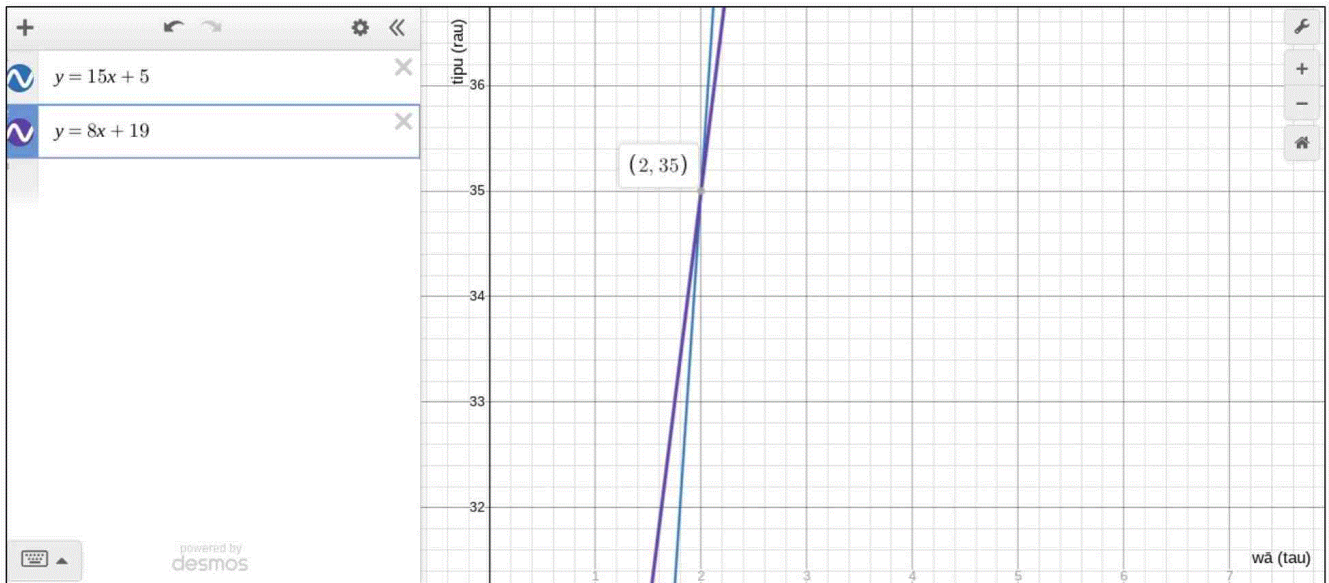
E hia nga rau i te mutunga o te 5 tau?

Koia nei te wā e ahei ana te kai raranga te tapahi i ngā rau tuatahi mai i te pā harakeke. Hei kimi i ngā rau whai muri i te 5 tau. Whakarau i te 15 ki te 5 tau kātahi tāpiri i te 5 rau mai i te tipu. ($15 \times 5 = 75 + 5 = 80$). E 80 ngā rau o te harakeke 5 tau te pakeke.

E hia nga rau i te mutunga o te tau 10?

($15 \times 10 = 150 + 5 = 155$). 155 ngā rau o te harakeke 10 tau te pakeke.

Haukotinga o te tipu o te muka poto me te muka roa



Whakataurite

I roto i tēnei whārangi ka whakataurite au i ngā whārite e rua kia kimi i te harakeke roa me te harakeke poto. Ko te whainga o te rautaki mahi kia whakangāari ake i te whakautu.

Ngā Whārite: ($Y = 8x + 19$) ($Y = 15x + 5$)

Rautaki mahi:

- Tuatahi tāpiri i ngā whārite e 2. $Y = 8x + 19 = 15x + 5$
- Tuarua tango i ngā x (**15**).
- $15x - 15x = 0$
- $8x - 15x = -7x$
- Ko te whārite inaianei ko te $y = -7x + 19 = 5$
- Inaianei tango i ngā nama mai i ngā whārite (**19**)
- $-7x + 19 = 5$
- $19 - 19 = 0$

- $5 - 19 = -14$
- Ko te whārite inaianei. $Y = -7x = -14$
- Ritu i ngā nama e rua ki te nama o x .
- -7 ritua $-7 = 1$
- -14 ritua $-7 = 2$ ($y = 2$)
- Hei kimi i te whakautu y tīwhiri i tētahi whārite (I tīwhiri au i te $y = 15x + 5$)
- Na te mea kua kimi mātou i te whakautu y (2). Ko te whārite inaianei $15(2) + 5$.
- Whakarau i te 15 mai i te (2) = 30 tāpiri i te 5.
- Whakautu: $15 \times 2 + 5 = 35$
- ($x = 35$)
- ($x = 35, y = 2$)

Rau (Harakeke)	$Y = 15x + 5$ Muka Roa	$Y = 8x + 19$ Muka Poto
Tau 1	20	27
Tau 2	35	35
Tau 3	50	43
Tau 4	65	51
Tau 5	80	59

Kōrero Whakamārama i ngā Whārite:

Ka taea e mātou te kite i te tau tuatahi he nui ake ngā rau o te muka poto, a, ka orite ngā nama o te muka roa ki te muka poto i te tau tuarua.

Mai i te tau tuarua piki ake ka nui ake ngā rau o te muka roa ki te muka poto na te maha ake o ngā rau ka tipu ia tau.

Ahakoā I nui ake ngā rau o te muka poto i te timatanga, ko te ture me tatari mo te 5 tau i mua i te tapahi i ngā rau.

Kairangi

Wāhanga Ako: Pāngarau

Paerewa: 92067

Total Score: 07/08

Pātai	He Pitopito Kōrero
Tahi	Māraakerake ana te raupapa aroā o ngā whārite. E kitea ana te hāngai o ngā hāponotanga ki te take i hua mai ai ngā otinga. Kei reirā te whakataunga e whakamārama ana i te hua o te rangahau.

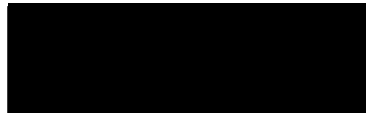
Tā te ākonga mahi (Kaiaka/Merit)

1.3 Pāngarau 92067 Te whakamahi tikanga taurangi hei whakaoti rapanga

Rangahau i ngā kōrero mātauranga mō te

-Tānekaha

-Mahi Muka



Tānekaha:

Ko te tānekaha he rākau tūturu nō Aotearoa. I whakamahi nui nei o tātou tīpuna i te tānekaha ki te hanga i te waitae. Ka waihanga i tēnei mai i te kiri o te rākau tānekaha. Ko te pūtaka o te waitae nei kia whakakara me te whakarākei i ngā kākahu kapa haka. Ko te waitae o te tanekaha he whakahanumitanga o ngā kara parauri me te whero.

Me te mea nei, kua whakamahi te tānekaha hei rongoa Māori, hei rauemi rākau kia hanga i ngā taputapu, koi koi, whakairo.

Mahi Muka:

E rua ngā tūmomo harakeke, ko te tikanga o tētahi ko te whakamahi hei raranga, ko tētahi atu hei whakamahi mō te mahi muka. Ka whakamahi i te muka hei hanga i ngā kākahu kapa haka pērā i ngā piupiu, maro, korowai, taura me te kupenga. Ko ngā waitae maori ka uhia i runga i ēnei hei whakarākei me te whakaātaahua i ngā kākahu kapa haka nei. Ko ngā momo tae ka tāea ki te whakamahi ko te whakahanumi i te whero me te parauri, kōwhai, pango me te parauri. Ko te waitae pango he uaua te kite i ēnei rā. I ngā rā a o tātou tīpuna i maha ngā korowai i hangaia mai i te muka hei ārai i ngā wāhine, ko ngā piupiu me ngā maro mō ngā tāne me te kākahu matua ka mau tātou mō te kapa haka i aua wā. I ēnei rā ka whakamahi ko ngā pari, ngā tātua, me ngā tīpare ka hangaia mai i te wūru. Me tino pupuri ki ēnei taonga ā o tātou tīpuna nā te mea he hiranga nui ēnei mahi i roto i o rātou wā, ā, he tika hoki kia pupuri ki o rātou taonga.

He aha te Kūmete?:

Ko te kūmete he tūmomo ipu i whakamahi o tātou tīpuna hei āwhina ki te paera i te wai. Ka hangaia te kūmete mai i ngā rākau motuhake nō Aotearoa pērā i te tōtara, mānuka me te tī koūka.

Anō nei ko te kūmete he taputapu pupuri wai me te kai, ā, he porowhita te hanga pērā i tētahi oko tino nui me te maha o ngā whakairo.

Ki te whakamārama me pēhia te paera i te wai i roto i te kūmete ka tīmata mā te whakawera i ngā toka puia i te ahi mō te rima ki te ono haora. Ka rau atu ki te kūmete i te wā kua rite.

Te Tukanga Waitae:

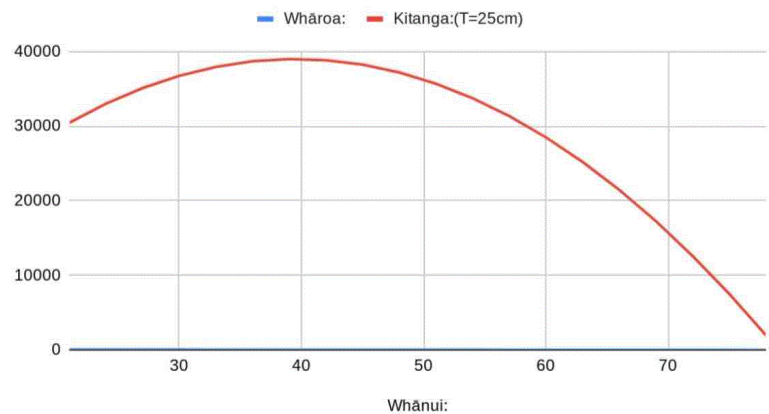
I ngā rā o mua ko o tātou tīpuna tērā i whakamahi i tēnei tukanga waitae hei whakakara me te whakarākei i o rātou kākahu kapa haka. Ko ngā kākahu katoa ka hangaia mai te muka ko ngā kākahu e tāea ana ki te uru ki te waitae.

1. Me whakawera i o toka puia i te ahi mō te rima ki te ono haora. Me whakamahi i ngā toka puia nā te mea he tino wāia ngā toka puia ki te ahi.
2. Tikina tō kūmete, arā, me whakakī kia paku te wai kia tere ake te paera o te wai. Ina he hohonu te wai ka roa ake te paera o te wai.
3. Kātahi me rau atu i ngā toka puia i roto i te wai kia paera.
4. I te wā kua paera te wai me tango i ngā toka mā te whakamahi e rua ngā rākau, engari i mua te tango mai i ngā toka me whakamāku i ngā rākau e rua.
5. Purua i te kiri o te tanekaha i roto i te kūmete tae noa i te wā ka panoni kara te wai.
6. Whai muri i tērā ko te wā ināianei ko te rau atu i o kākahu i roto i te kūmete kia panoni ki te kara o te waitae.

Whānui:	x	Whāroa:	y	Kitanga: (25cm)
	21cm		58cm	30,450 cm ³
	24cm		55cm	33,000 cm ³
	27cm		52cm	35,100 cm ³
	30cm		49cm	36,750 cm ³
	33cm		46cm	37,950 cm ³
	36cm		43cm	38,700 cm ³
	39cm		40cm	39,000 cm ³
	42cm		37cm	38,850 cm ³
	45cm		34cm	38,250 cm ³
	48cm		31cm	37,200 cm ³
	51cm		28cm	35,700 cm ³
	54cm		25cm	33,750 cm ³
	57cm		22cm	31,350 cm ³
	60cm		19cm	28,500 cm ³
	63cm		16cm	25,200 cm ³
	66cm		13cm	21,450 cm ³

I te tuatahi i whakamahi ahau ngā pepa hei whakatauiria i te kūmete kia tuhura i te whānui me te roa, pai rawa mō te kūmete. Nā reira ka whakamahi i tētahi taura ine kia kimi i te whānui, roa me te kitanga. Nā te kitanga ka whakaatu i te rahinga tika o te wai kia uru i roto te kūmete. I whiri ahau i te 25 henemita kia āhei te korowai te ō i roto.

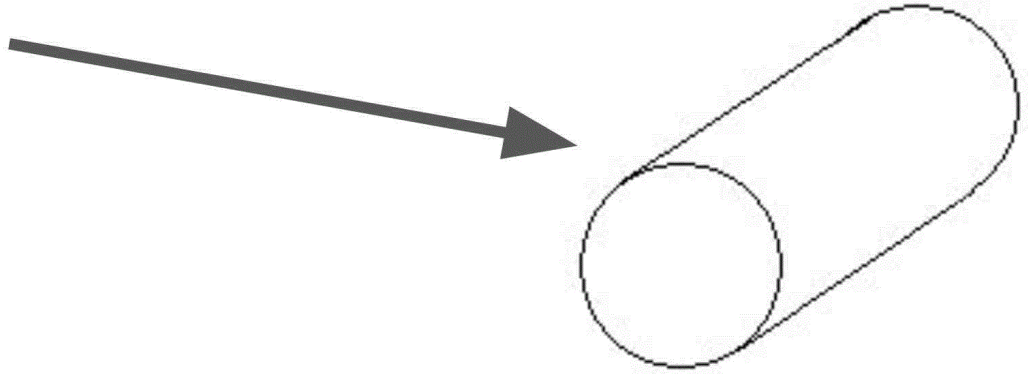
Te hononga o te whāroa o te kitanga me te kūmete.



He aha te whānui o te kūmete? He aha te whāroa o te kūmete?

Ka kite ahau mai i te kauwhata ko te 50 henemita te whāroa, ko te 29 henemita te whānui o te kūmete. I whakatau kia pēnei hei pupuri i te āhuatanga porowhita o te rākau. Ko te mahi noa iho ko te tapahi i roto te rākau kia ōrite ki tētahi ipu tapawha roa.

Pēnei te āhua:



Pātai tuhurangatanga mō te tipu:

I pātai ahau i ēnei pātai kia kōka Tui tō mātou kaiako pangarau me te pūtaiao.

1. E hia ngā rau o te tipu? E rima ngā rau i te wā ka whakatipu.
2. E hia o ngā rau ka tipu ia tau? He rerekē ngā momo harakeke, tipu, ā, he rerekē te raranga me te muka. Ia tau ka piki ake te tautoharite o ngā rau. Ko te tautoharite o ināianei ko te 15 mōkito ki te 20 mōrahi ngā rau ka whiwhi ia tau. Ka whiriwhiri i te 20 (mōrahi) kia maha te whakamahinga o ngā rau harakeke.
3. E hia ngā rau ka tipu i te rima tau?
4. E hia ngā rau ka tipu i te whitu tau?

Whārite

1. Rau harakeke i te timatanga = 5.
2. (Tau=T) T = Te maha o ngā tau, (Rau = R.)
Rau ka tipu ia tau = 15 - 20
3. $R = 20T + 5$
 $R = 100 + 5 = 105.$
4. $R = 20T + 7 = 140$
 $R = 140 + 5 = 145.$

Kia hia ngā muka e āhei ki te ō i roto i te kūmete:

I te wā i ine ahau i te korowai ko ngā rahinga ko te 134 henemita whāroa, 42 henemita te whānui, ā, e whā henemita te teitei. Mō te kūmete he 25 henemita te teitei nā reira me whakakī i te wai kia haurua o te 25 henemita, ā, ko te 12.5 henemita ka whakakī i te wai. Mēnā ka hohonu te wai i roto i te kūmete ka maringi te wai i waho i te kūmete mai i ngā toka puia. I te tuatahi me paera i te wai i mua i te rau atu i tō korowai i roto i te kūmete. Ko te 50 henemita te whāroa, 29 henemita te whānui, ā, ko te 25 henemita te teitei, ko ēnei ngā rahinga katoa o te kūmete.

$3,450\text{cm}^3 / 2 = 1,725\text{cm}^3$ (Nā te haurua o te wai me haurua i te kitanga o te kūmete.)

$134\text{cm} \times 42\text{cm} \times 4\text{cm} = 22,512\text{cm}^3$ (Te kitanga o te korowai.)

$22,512\text{cm}^3 / 1,725\text{cm}^3 = 13.05$ (2dp) Ināianei ka whakaatu i te 13 ngā korowai ka āhei ki te ō i roto i te kūmete.

Whakataurite i te muka roa me te muka poto

I te timatanga, i te wā ka whakatō i ngā tipu, e rima ngā rau i te muka poto, e 19 i te muka roa.

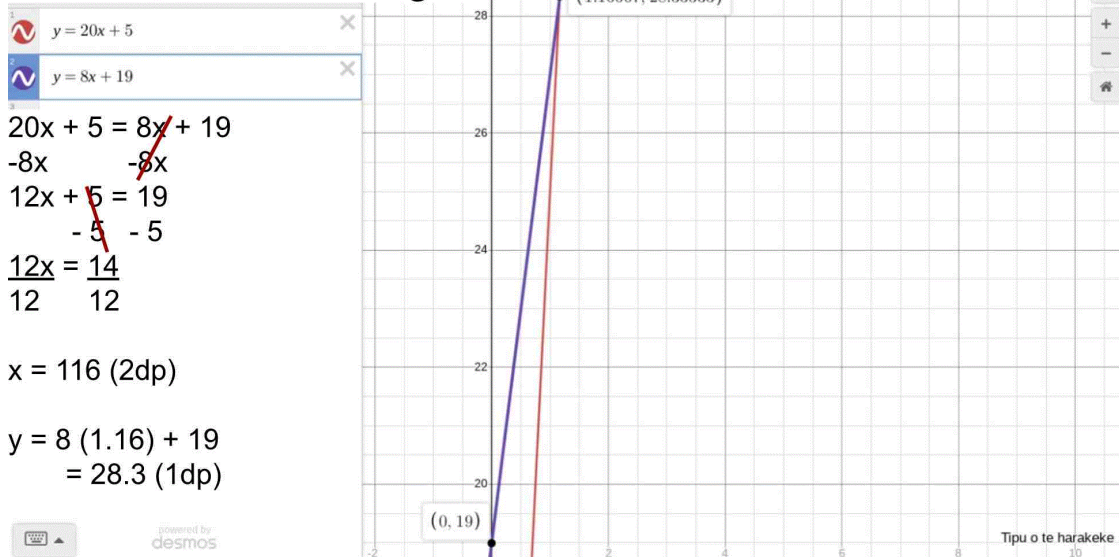
Ko te rōnaki o te rārangi muka poto he 20, mō te muka roa e waru. He maha rawa ake ngā rau o te muka poto ia tau.

I te tau tuatahi he maha ake ngā rau muka roa ka tipu i te timatanga. Kātahi ka tipu ake te muka poto he maha rawa ake ngā rau ia tau ki tā te muka roa. Ko te haukotinga o ngā rārangi ko $x = 1.16$, $y = 28.3$.

I te mutunga o ngā tau e rima, e 105 ngā rau i te muka poto, e 59 i te muka roa.

Tau	$Y = 20x + 5$ Muka poto	$Y = 8x + 19$ Muka roa
0	5	19
1	25	27
2	45	35
3	65	43
4	85	51
5	105	59

Te tātai i te haukotinga:



Kaiaka**Wāhanga Ako:** Pāngarau**Paerewa:** 92067**Total Score:** 05/06

Pātai	He Pitopito Kōrero
Tahi	He pai te whakaraupapa o ngā whārite taurangi. He pai te whakamahinga o ngā kauwhata me ngā tūtohi.

Tā te ākonga mahi (Paetae/Acheived)

92067 Te Tuna



Mo matou o Ngati Raukawa ko tetahi o nga tino taonga ko te tuna. Ka hopu tatau i te tuna hei kai. Engari ehara noa i te kai he kaitiaki mo nga wahanga katoa o te wai maori.

Ko te tuna te kai matua o matau tupuna na te ngawari o te hopu me te tini o nga tuna. I tiaki i nga tuna i roto i nga pataka tuna mo te tekau ma rua marama neke atu. I taea te kai i nga wa e pirangi ana, na te maha me te mama ki te hopu. He maha rawa hoki nga ahua ki te tunu i te tuna kei a koe ano te tikanga.

Ma te ahua o te tuna e kite i i te ora o te wai. Na te ahua o te tuna, ki te kati ratau i o ratau waha e ki ana he paru te wai a e kore pea e taea ki te kai. No reira ka mate pea te tuna.

Ko oku awa, ko Otaki, ko Manawatu, engari mo tenei kaupapa ka korero au mo te roto o Waiorongomai.

TUMAHI 1

Aku kaupapa

- Nga inenga o te roto o Waiorongomai
- Te tupu o te tuna
- Te hanga i te hinaki hopu tuna

Patai 1

E 490m te paenga o te roto o Waiorongomai. He aha nga inenga o te roto?

$$8x + 2 + 4x + 8 + 5x - 2 + 10x - 4$$

$$27x + 4$$

$$27x + 4 = 490$$

$$27x = 486$$

$$x = 18$$

Patai 2

E 24000m^2 te horahanga o te roto o Waiorongomai. He aha nga inenga o te roto?

$$w = 10x + 40$$

$$r = 10x + 30$$

$$(10x + 40)(10x + 30)$$

$$= 100x^2 + 400x + 300x + 1200$$

$$100x^2 + 700x + 1200$$

$$100x^2 + 700x + 1200 = 24000$$

$$x^2 + 7x + 12 = 240$$

$$x^2 + 7x - 228 = 0$$

$$(x - 12)(x + 19) = 0$$

$$x = 12 \quad x = -19 \text{ (Kaore he take)}$$

Patai 3

Ko te korotete te ingoa o te pataka tuna hei tiaki i nga tuna.

E 0.729 m^3 te rorahi o te korotete tapawha rite. He aha nga inenga o te korotete?

$$r \times w \times t = 0.729\text{m}^3$$

$$r = w = t \quad 0.9 \times 0.9 \times 0.9 = 0.729$$

$$x = 0.9$$

TUMAHI 2

Te tupu o te tuna

E 5cm te roa o te tuna a te taenga ki Aotearoa. E 2.5cm te tupu ia tau.

$5 + 2.5 \times 0 = 5\text{cm}$ Tae mai ki Aotearoa

$5 + 2.5 \times 1 = 7.5\text{cm}$ Kotahi tau

$5 + 2.5 \times 2 = 10\text{cm}$ E 2 tau

$5 + 2.5 \times 3 = 12.5\text{cm}$ E 3 tau

$5 + 2.5 \times 4 = 15\text{cm}$ E 4 tau

$5 + 2.5 \times 5 = 17.5\text{cm}$ E 5 tau

$5 + 2.5x = y$

Patai 1

E 60 tau te pakeke o te tuna, e hia te roa?

$x = 60$

$5 + 2.5(60) = y$

$155 = y$

Patai 2

E 200cm te roa o te tuna, e hia te pakeke?

$y = 200$

$5 + 2.5x = 200$

$2.5x = 195$

$x = 78$

TUMAHĪ 3

Te hanga i te hinaki hopu tuna

Te roa o te waea me te nui o te kupenga

Ki te toa Hammer Hardware, e \$6.00/m te utu mo te waea, e \$7.00/m² te utu mo te kupenga, e \$74.00 te utu mo nga rawa katoa.

Ki te toa Mitre 10 Mega, e \$7.00/m te utu mo te waea, e \$3.00/m² te utu mo te kupenga, e \$76.00 te utu mo nga rawa katoa.

Patai 1

$$6x + 7y = 74$$

$$7x + 3y = 76$$

Me rite te y

$$18x + 21y = 222$$

$$49x + 21y = 532$$

Me tango

$$-31x = -310$$

$$x = 10$$

$$18x + 21y = 222$$

$$18 \times 10 + 21y = 222$$

$$180 + 21y = 222$$

$$21y = 42$$

$$y = 2$$

Paetae

Wāhanga Ako: Pāngarau

Paerewa: 92067

Total Score: 04

Pātai	He Pitopito Kōrero
Tahi	E whakaatu ana i ētahi whārite tuatini me ētahi whārite pūrua hoki. Kāore i eke ki tua nā te rehurehu o te whakaraupapa, otirā kāore i whakaraupapa arorautia.