



NGĀ PUKA RAPANGA PĀNGARAU TAUNAKI

Whakareatanga me te Wehenga

TAU 4

Pukapuka Kaiako

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Rapanga 1

Mō te Polyfest ka whakaritea ia rōpū kaikanikani ki ngā haupae.

Mēnā e 15 ngā rārangi kaikanikani me ngā kaikanikani e 9 i ia haupae, e hia katoa ngā kaikanikani?

Mēnā e 8 ngā rārangi kaikanikani me ngā kaikanikani e 21 i ia haupae, e hia katoa ngā kaioma?

Mēnā e 44 ngā rārangi kaikanikani me ngā kaikanikani e 5 i ia haupae, e hia katoa ngā kaikanikani?

Whakaaturia he pēhea tō whakaoti i te raru mā te whakamahi i ngā tau me tētahi whakaaturanga.

Hei āwhina i te kaiako

I mua i te whakarewatanga, whakamahia ngā atahanga tere hei whakamahana kia arotahi ki ngā ākonga e kite ana i ngā huānga me te whakarea.

Me wātea ngā kaitatau, pepa mātiti rānei ka taea e ngā ākonga te whakamahi hei whakarōpū i tētahi huānga. Whakangāwari i ngā ākonga ki te whakarite i ngā rauemi ki tētahi huānga, kaua ki ngā huinga motuhake

XXXX
XXXX
XXXX

Me whakamahi hoki tēnei mō te tūhono. Tautoko i ngā ākonga kia neke atu i ngā tauira tauwhāiti me te kite me pēhea te huānga e whakaatu ai e mahi tonu ana te whakaaro ahakoa he aha ngā tau e whakamahia ana.

Tirohia ngā ākonga e whakamahi ana i te 'maha', i ngā huinga rānei hei whakaahua i ngā rōpū me te whakapakari i tēnei reo.

Whakamahia tēnei hei whakauru i te tohu whakarea hei tohu i ēnei ki te kore ngā ākonga e whakamahia.

Whakangāwari i ngā ākonga ki te neke atu i te tīpoka tatau me te whakaatu i te huānga me te āhuatanga whakarea mā te whakamahi i ngā tau me te tāpiritanga, te whakarea rānei.

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

E ai ki tā mātou pūnaha tau i runga anō i ngā whakarōpūtanga tekau, tekau pūtake rānei. Ka taea te wehe i ngā whakarōpūtanga o tētahi, tekau, rau, me ngā mano i roto i ngā huarahi rerekē.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

He āhuatanga tauhanga e whakaahua ana i te tāpiritanga me te whakareatanga hei mahi. Koinei ngā āhuatanga whakawhitiwhiti, pāhono, tohatoha, me te tuakiri. He pātahitanga kōaro tō te tāpiritanga me te tangohanga me te whakareatanga me te wehenga.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

Ko te tikanga o te āhuatanga whakawhitiwhiti he ōrite te 3×6 ki te 6×3 nō reira $6 \times 3 = 3 \times 6$.

Wā toha

Tīpakohia ngā ākonga hei tiritiri ko wai kua whakamahi i tētahi huānga hei tohu i ngā pōpokorua me te whakaoti i te tūmahi whakareatanga. Ki te kore ngā ākonga e whakamahi i tēnei aratuka, whakatauirā mō rātou.

Ka taea e ngā ākonga te whakamahi i te tatau tīpoka.

Ka taea e ngā ākonga te whakamahi i tētahi whakaaturanga huānga (hanganga).

Ka taea e ngā ākonga te whakamahi i te tāpiritanga tukurua (hanganga).

Ka taea e ngā ākonga te whakamahi i te mōhiotanga ki ngā take taketake.

Hono

Kei te whakaoti a Sione i te raruraru, ā, e whakaaro ana ia ka taea e ia te whakaoti i te tūmahi tuatahi hei 15×9 , 9 rānei $\times 15$.

E whakaae ana, e whakahē ana rānei koe ki a Sione?
Whakaarohia ngā mea e kitea ana e koe.

Whakamātauria tō whakaaro mā ngā tauira me te huānga.

Whainga ako Ka ako ngā mokopuna ki te:

Tohu, whakamārama hoki he pēhea te tohu o te huānga i tētahi rōpū.

Whakaaturia tētahi huānga i runga i te hanganga.

Whakamārama, whakatautika hoki me pēhea e taea ai te whakarōpū i ngā tau i roto i te maha o ngā huarahi-ka noho ōrite tonu te tau i roto i tētahi huinga ahakoa pēhea te whakaritenga, te whakaaturanga rānei.

Whakamārama, whakatautika hoki i te āhuatanga whakawhitiwhiti o ngā whakareatanga.

Whakaatu, whakamārama, me te whakatautika i ngā pātahitanga i waenga i ngā tau i roto i tētahi mahing

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:
h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:
h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:
h.t., $65 \div 5$.

Ngā tini mata o te Reo Pāngarau

Whakarea, ōrite, taarua, whakareatanga, maha, huinga ō, huānga, orite

Rapanga Motuhake

E 48 ngā feijoas o Aunty i roto i te pēke kotahi, e 54 ngā feijoas i tētahi atu pēke. E hia katoa ngā feijoas o te whaea?

E 54 ngā rēmana i kohia e Koru i tana rākau. I puritia e ia ētahi rēmana, a, ka hoatu e 26 ki te hoa noho tata. E hia ngā rēmana i puritia e Koru?

E 27 paramu a Niko i roto i te pēke. I kōwhiria e ia ētahi atu paramu, ā, ināiane i e 73 ana paramu. E hia ngā paramu i whiriwhiria e Niko?

E 163 ngā anga i kohia e Mona, ā, i kohia e tōna whanaunga ētahi atu. Ināiane i e 202 ō rātou anga. E hia i kohia e te whanaunga?

E 126 ngā pere māwhero o Mere i roto i te pēke kotahi. He pere kōwhai anō tāna i roto i tētahi atu pēke. E 301 katoa ōna pere. E hia ōna pere kōwhai?

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 2

Kai te whakatakoto tūru a Tiana i roto i te whare karakia. E 96 ana tūru hai whakaraupapa ki ngā haupae.

He aha ngā huarahi rerekē katoa e taea ai e ia te whakarite kia ōrite ai te maha o ngā tūru i ia haupae?

Hei āwhina i te kaiako

Me wātea he pepa tapawhā, he pepa iraira rānei ka taea e ngā ākonga te whakamahi hei tapahi me te tautohu i ngā whakarōpū rerekē ka taea e rātou te whakaingoa.

Whakangāwari i ngā ākonga ki te tautohu ka taea te whakaahua i tētahi huānga i roto i ngā huarahi neke atu i te kotahi. Kia mōhio ki ngā ākonga e whakamahi ana i te tohu hei tohu i te āhuatanga whakawhitiwhiti me te hanga i runga i ā rātou whakaaro.

Kia mōhio ki ngā ākonga e tautohu ana i ngā whakarōpū katoa e taea ana i runga i te āhua nahanaha. Miramiratia tēnei ki ētahi atu ākonga.

Whakaurua ngā kupu take me ngā hua ki ngā ākonga.

Mō te tūmahi takitahi, me whai kaitatau, pepa mātiti, me ētahi atu rauemi hei hanga i tētahi whakatika raima.

Wā toha

Tīpakohia ngā ākonga hei tiritiri ko wai i whakamahi i ngā tauira me ngā pātahitanga ki te kimi i ngā āhuatanga rerekē katoa mō te 96.

Hei tauira, 96 & 1, 48 & 2, 24 & 4, 12 & 8, ērā atu mea.

Mēnā kāore anō ngā ākonga kia whakamahi i tētahi tikanga nahanaha hei kimi i ngā take, whakaurua tēnei hei rongoā ka taea.

Hono

He aha ngā take katoa e taea ana mō te 12?

He aha ngā take katoa e taea ana mō te 24?

Me pēhea koe e whakamārama ai i ngā take ki tētahi taitamariki?

Whakaaro Matua o te Ao Pāngarau

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He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

He āhuatanga tauhanga e whakaahua ana i te tāpiritanga me te whakareatanga hei mahi. Koinei ngā āhuatanga whakawhitiwhiti, pāhono, tohatoha, me te tuakiri. He pātahitanga kōaro tō te tāpiritanga me te tangohanga me te whakareatanga me te wehenga.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

Ko te tikanga o te āhuatanga whakawhitiwhiti he ōrite te 3×6 ki te 6×3 nō reira $6 \times 3 = 3 \times 6$.

Whainga ako Ka ako ngā mokopuna ki te:

Tohu, whakamārama hoki he pēhea te tohu o te huānga i tētahi rōpū.

Whakaaturia tētahi huānga i runga i te hanganga.

Whakamārama, whakatautika hoki me pēhea e taea ai te whakarōpū i ngā tau i roto i te maha o ngā huarahi-ka noho ōrite tonu te tau i roto i tētahi huinga ahakoa pēhea te whakaritenga, te whakaaturanga rānei.

Tautuhia ngā take mō ngā tau.

Kia mōhio koe he maha ngā take o ngā tau.

Rapanga Motuhake

Kei te whakaoti a Tatiana i ētahi raruraru whakarea.

$$9 \times 7 = 63$$

$$7 \times 9 =$$

$$21 \times 22 = 462$$

$$22 \times 21 =$$

E kī ana a ia kāore e hiahiatia e ia te mahi i te whakautu mō te whārite tuarua i ia huinga.

E whakaae ana koe ki a Tatiana?

He aha tāu e kite nei?

Mahia he whakaaro.

Whakamahia ngā tau me ngā rauemi hei tūhura me te whakamātau i te whakaaro.

E mahi ana tēnei me ētahi atu mahi? Whakamātauria mā te tāpiri, te tangohanga, me te wehewehenga.

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:

h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

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Whakarea tau mati-1, mati-2 ki te tau matitahi:

h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:

h.t., $65 \div 5$.

Ngā tini mata o te Reo Pāngarau

Whakarea, ōrite, tarua, whakareatanga, maha, huinga ō, huānga, orite, tauoti, tau whakarea.

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 3

Kei te whakaaro a Lotti mō ngā ekenga i Rainbows End, me te roa o tō tatari mō ia ekenga kia taea ai e ia te whakarite i tōna rā.

Ka taea e te Log Flume te whakauru ki ngā kaieke e 4.
E 63 ngā wā i ia haora e haere ana te eke.
E hia ngā kaieke ka taea te haere i runga i te Log Flume i roto i te haora?

Ka taea e te eke hinga Wehi te uru ki ngā kaieke 18.
Ka taea e te haere te haere kia 9 ngā wā i ia haora.
E hia ngā kaieke ka taea te haere ki te Fear Fall ia haora?

E 28 ngā tāngata e uru ana ki te rōra.
Ka taea e te haere te haere kia 8 ngā wā i ia haora.
E hia ngā kaieke ka taea te haere i runga i te rollercoaster ia haora?

He aha te eke ki tōu whakaaro ka poto rawa te tatari?

Hei āwhina i te kaiako

I mua i tō whakarewatanga i te tūmahi, tirohia anō te ariā o ngā take.
Matapakihia he aha ngā take o te 8. Tuhia hei kōhua me te tapa i runga i te tau 8. Me whai pūangi e puta mai ana i te kōhua me te 1, 4, 2, 8 (ngā take o te 8). Tukuruatia ki ētahi atu tau.

Tirohia mēnā kei te whakamahi ngā ākonga i te tāpiritanga tukurua, i ngā huānga, i te tauira horahanga rānei hei whakaoti i ngā tūmahi whakarea.

Tūmanako kia whakamahia e ngā ākonga te hanganga whakarea hei whakaoti i ngā tūmahi.

Whakaurua ngā kupu e pā ana ki te whakareatanga tae atu ki te hua, te āhuatanga tohatoha, te tāpiritanga tukurua.

Tūmanako kia whakaatu ngā ākonga mā te whakamahi i ngā tātuhī me ngā tuhipoka tae atu ki te whakamahi i ngā rerenga tau.

Mō te tūmahi takitahi, me whakawātea ngā kaitatau, pepa mātiti rānei mā ngā ākonga.

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

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He maha ngā huarahi ka taea te whakaatu i ngā tau.

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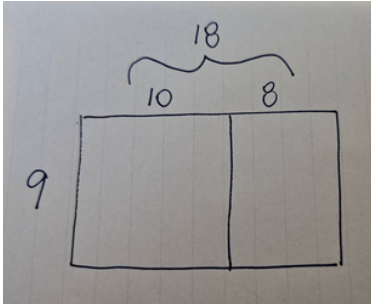
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Ko te tikanga o te āhuatanga whakawhitiwhiti he ōrite te 3×6 ki te 6×3 nō reira $6 \times 3 = 3 \times 6$.

Wā toha

Tīpakohia ngā ākonga hei tiritiri ko wai kua whakamahi i te tāpiritanga tukurua me te āhuatanga tohatoha hei whakaoti i ngā tūmahi. Mēnā kāore anō ngā ākonga kia whakamahi i te āhuatanga tohatoha, whakatauirā tēnei mō ngā ākonga. Tauria me pēhea te hopu i te tauria horahanga pēnei i raro nei [mō te 18×9] mō ngā ākonga:



Kōrerorerotia ki ngā ākonga he aha te take e tika ai te tāpiri tukurua mō te tūmahi tuatahi, engari he iti iho te pai mō te tūmahi tuarua.

Rongoā Kotahi: $63 + 63 + 63 + 63 + 63 + 63$

Rongoā Tuarua: $(10 \times 9) + (8 \times 9)$

Hono

E 26 ngā kaieke o te eke Stratosfear.

E 8 ngā wā i ia haora e haere ana te eke.

E hia ngā kaieke ka taea te haere ki runga i te kaieke i roto i te haora?

Whakaahuatia me pēhea te whakaoti i tēnei tūmahi mā te tāpiritanga tukurua.

Whakaahuatia me pēhea te whakaoti i tēnei tūmahi mā te whakamahi i te āhuatanga tohatoha.

Whaingā ako Ka ako ngā mokopuna ki te:

Whakaotia ngā raruraru whakarea e pā ana ki ngā mokatere.

Whakamahia te āhuatanga tohatoha hei whakaoti i ngā tūmahi whakarea.

Whakamārama, whakatautika hoki me pēhea e taea ai te whakarōpū i ngā tau i roto i te maha o ngā huarahi-ka noho ōrite tonu te tau i roto i tētahi huinga ahakoa pēhea te whakaritenga, te whakaaturanga rānei.

Whakamārama, whakatautika hoki i te āhuatanga whakarea o te whakareatanga.

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:

h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

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h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:

h.t., $65 \div 5$.

Ngā tini mata o te Reo Pāngarau

Whakarea, ōrite, whakareatanga, maha, huinga ō, ngā huānga, orite ki te tauoti, tapiritanga tukurua, āhuatanga tohatoha, putau

Rapanga Motuhake

Whakapūketetia ngā āhuatanga me ngā pūangi me ngā take katoa mō ngā tau e whai ake nei:

8	12	16	20
30	45	80	

Me pēhea tō whakamārama he aha ngā take ki te taitamariki?

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 4

Kei te whakataurite a Hoana rāua ko tōna tuakana ko Wiremu i a rāua kohinga.

E 14 ngā kohatu kōhatu o Wiremu. E waru ngā wā o Hoana te maha o ngā kōhatu kōhatu.
E hia ngā kōhatu kōhatu o Hoana?

E 37 ngā kāri Pokemon a Hoana. E rima ngā kāri Pokemon o Wiremu.
E hia ngā kāri Pokemon kei a Wiremu?

E 15 ngā māpere o Wiremu, tekau mā rua ngā māpere o Hoana.
E hia ngā māpere kei a Hoana?

Hei āwhina i te kaiako

I te wā o te whakarewatanga, whakaaturia ngā ākonga o ngā huānga rerekē (hei tauira, ngā rārangi tāngata, ngā matapihi i tētahi paraka noho, ngā rākau niu i ngā raina). Pātai atu ki a rātou mēnā he huarahi tere ki te mahi e hia ngā ahanoa me te kore tatau i aua mea katoa.

Tirohia mēnā ka wehewehea e ngā ākonga ngā tau mati-rua mā te whakamahi i te āhuratanga tuari (hei tauira, $(10 \times 8) + (4 \times 8)$).

Tūmanako kia whakamahi ngā ākonga i ngā kupu e pā ana ki te whakareatanga tae atu ki te hua, te tāpiritanga tukurua, te tuari, te huānga, te tauira horahanga.

Tūmanako kia whakaatu ngā ākonga mā te whakamahi i ngā tātuhi me ngā tuhipoka tae atu ki te whakamahi i ngā rerenga tau.

Mō te tūmahi takitahi, me whakawātea ngā kaitatau, pepa mātiti rānei mā ngā ākonga

Wā toha

Tīpakohia ngā ākonga hei tiritiri nā wai i whakamahi i te āhuratanga tohatoha hei whakaoti i ngā tūmahi. Mēnā kāore anō ngā ākonga kia whakamahi i te āhuratanga tohatoha, whakatauiria tēnei mō ngā ākonga.

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

Ka taea te whakamahi, te whakaaturanga me te whakawhānui i ngā tauira me ngā pātahitanga i roto i ngā huarahi maha.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

Ko te tikanga o te āhuratanga whakawhitiwhiti he ōrite te 3×6 ki te 6×3 nō reira $6 \times 3 = 3 \times 6$.

Ko te āhuratanga pāhono o te whakareatanga e pēnei ana, hei tauira, $(2 \times 2) \times 6 = 2 \times (2 \times 6)$, e whakamahia ana i te tāruatanga tukurua ina kimi i te hua o te 4 me te 6.

Ko te āhuratanga tohatoha e pēnei ana, hei tauira, $7 \times 7 = (7 \times 5) + (7 \times 2) = 35 + 14 = 49$.

Hono

Ka kite a Hoana ka taea e koe te whakaoti $14 \times 8 = (10 \times 8) + (4 \times 8)$.

E miharo ana a ia mēnā ka taea hoki e koe te whakaoti hei

$$14 \times 8 = (12 \times 8) + (2 \times 8).$$

E mahi ana tēnei?

Whakamahia ngā kaikaute me te hanga huānga kia kite mēnā ka pai tēnei.

He aha ngā huarahi rerekē e taea ai e koe te wehe i ngā tau hei whakarea i te $14 \times$ te 8?

Whainga ako Ka ako ngā mokopuna ki te:

Whakaotia ngā raruraru whakarea e pā ana ki te whakataurite.

Tautuhia te hononga i waenga i te tāpiritanga tukurua me te whakareatanga.

Tautuhia te hononga i waenga i te huānga me te whakareatanga.
Whakamahia te āhuatanga tohatoha hei whakatika i tētahi raru whakareatanga.

Whakamārama, whakatautika hoki me pēhea e taea ai te whakarōpū i ngā tau i roto i te maha o ngā huarahi-ka noho ōrite tonu te tau i roto i tētahi huinga ahakoa pēhea te whakaritenga, te whakaaturanga rānei.

Rapanga Motuhake

Whakaotia ngā raru e whai ake nei:

$$12 \times 8 =$$

$$11 \times 32 =$$

$$74 \times 6 =$$

$$16 \times 13 =$$

Ngā tini mata o te Marautanga

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Whakarea ki te 10, ki te 100, ki te 1,000:

$$\text{h.t., } 10 \times 100 = 1,000 \quad 32 \times 100 = 3,200.$$

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:

$$\text{h.t., } 5 \times 46, 8 \times 7.$$

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:

$$\text{h.t., } 65 \div 5.$$

Ngā tini mata o te Reo Pāngarau

Whakarea, ōrite, whakareatanga, maha, huinga, ngā huānga, orite, tauoti, whakawehe, taurite, tapiritanga tukurua, comparison, āhuatanga tohatoha

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 5

Kei te whakaaro a Becky ki te tawhiti o ngā mea rerekē e neke ana i roto i te haora.

Ka taea e te poaka te neke kia 11 mita i roto i te haora.
Kia pēhea te tawhiti o te neke o te poaka i roto i te 8 haora?

Ka taea e te pea pākākā te neke 18 mita i roto i te haora.
Kia pēhea te tawhiti o te neke o te pea pākākā i roto i te 8 haora?

Ka taea e te cheetah te neke 74 mita i roto i te haora.
Kia pēhea te tawhiti e neke ai te cheetah i roto i te 8 haora?

Me mātua whakarite ka taea e koe te whakamārama me te whakatika i tō whakamārama i ngā huarahi rerekē.

Hei āwhina i te kaiako

Whakangāwari i ngā ākonga kia kite kei te whakaoti rātou i ngā raruraru auau, ā, ka taea ēnei te whakaatu hei ōwehenga pērā i te tūhono.

Whakaurua ngā kupu e pā ana ki te whakareatanga tae atu ki te hua, te tāpiritanga tukurua, te auau, te ōwehenga.

Tūmanako kia whakaatu ngā ākonga mā te whakamahi i ngā tātuhi me ngā tuhipoka tae atu ki te whakamahi i ngā rerenga tau.

Mō te tūmahi takitahi, me whakawātea ngā kaitatau, pepa mātiti rānei mā ngā ākonga.

Wā toha

Tīpakohia ngā ākonga hei tiritiri nā rātou i tuhi ā-pūnaha i te pikinga mokatere hei whakaatu i te pikinga o te tawhiti. Otiia, mēnā kāore anō ngā ākonga kia whakamahi i tēnei aratuka, tīpakohia ngā ākonga kua whakamahi i te tāpiritanga tukurua, ā, whakamahia tēnei hei whakaahua i te hononga.

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

Ka taea te whakamahi, te whakaaturanga me te whakawhānui i ngā tauira me ngā pātahitanga i roto i ngā huarahi maha.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

Ko te tikanga o te āhuratanga whakawhitiwhiti he ōrite te 3×6 ki te 6×3 nō reira $6 \times 3 = 3 \times 6$.

Ko te āhuratanga pāhono o te whakareatanga e pēnei ana, hei tauira, $(2 \times 2) \times 6 = 2 \times (2 \times 6)$, e whakamahia ana i te tāruatanga tukurua ina kimi i te hua o te 4 me te 6.

Ko te āhuratanga tohatoha e pēnei ana, hei tauira, $7 \times 7 = (7 \times 5) + (7 \times 2) = 35 + 14 = 49$.

Hono

E whakaaro ana a Becky ka taea e ia te whakatika i te raruraru mā te whakamahi i te tēpu. Koinei tana whakaahua i te poaka:

1:11

2:22

3:33 ...

Haere tonu te tēpu mō Becky.

Me pēhea e whakamahi ai a Becky i tētahi tēpu mō te pea pākākā?

Whainga ako Ka ako ngā mokopuna ki te:

Whakaotia ngā raruraru whakarea e pā ana ki ngā mokatere.

Tautuhia te hononga i waenga i te tāpiritanga tukurua me te whakareatanga.

Tautuhia te hononga i waenga i te huānga me te whakareatanga.

Whakamāramatia mā te whakamahi i tētahi whakaaturanga me pēhea te nui ake o te tawhiti i roto i te wā (hei tauira, mēnā he 11 mita te 1 haora, ko te 2 haora te 22 mita).

Whakamārama, whakatautika hoki me pēhea e taea ai te whakarōpū i ngā tau i roto i te maha o ngā huarahi-ka noho ōrite tonu te tau i roto i tētahi huinga ahakoa pēhea te whakaritenga, te whakaaturanga rānei.

Whakamārama, whakatautika hoki i te āhuatanga whakarea o te whakareatanga.

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:
h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:
h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:
h.t., $65 \div 5$.

Ngā tini mata o te Reo Pāngarau

Whakarea, ōrite, whakareatanga, maha, huinga ō, ngā huānga, orite, tauoti, whakawehenga, tapiritanga tukurua, utu, owehenga.

Rapanga Motuhake

He pono, he hē rānei ēnei rerenga tau? Whakamāramatia he aha.

$$23 \times 49 = 49 \times 23$$

$$19 + 19 + 19 + 19 + 19 + 19 + 19 = 19 \times 6$$

$$700 = 7 \times 100$$

$$14 \times 7 = (10 \times 7) + 14 + 14$$

$$8 \times 23 = (8 \times 20) + (8 \times 3)$$

Kimihia te tau ngaro:

$$242 \times 8 = 8 \times \underline{\hspace{1cm}}$$

$$14 \times 4 = (10 \times 4) + (\underline{\hspace{1cm}} \times 4)$$

$$23 \times 6 = 23 + 23 + 23 + 23 + 23 + \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} = 12 \times 5$$

$$(10 \times \underline{\hspace{1cm}}) + (7 \times 9) = 17 \times 9$$

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 6

I te Wehewehenga Nui, ka tīmata te iwi i roto i te rēhi i roto i ngā haupae.

E 55 ngā tāngata, ā, ka uru rātau ki ngā haupae e 5.
E hia katoa ngā haupae?

E 52 ngā tāngata, ā, ka uru rātau ki ngā haupae e 4.
E hia katoa ngā haupae?

E 98 ngā tāngata, ā, ka uru rātau ki ngā haupae e 7.
E hia katoa ngā haupae?

Hei āwhina i te kaiako

<https://youtu.be/7ZSlOqD5h6U>

I te whakarewatanga, whakamaharatia ngā ākonga ki ngā āhuatanga whakawehenga rerekē o tetahi pūrākau.

Whakaritea he kaitatau hei whakamahi mā ngā ākonga hei whakatauiria i te raru.

Whakangāwari i ngā ākonga kia mōhio he tere ake, he ngāwari ake hoki te whakamahi i te hanganga hei whakaoti i ngā tūmahi i te tataui, i te whakamahi rānei i te whakamātautau me te hapa.

E arotahi ana tēnei tūmahi ki te whakawehe i tētahi kohinga ahanoa ki te maha o ngā rōpū ōrite. E kīia ana tēnei ko te wehenga tiritiri, te wehenga wāhanga rānei.

Mō te tūmahi takitahi, me whakawātea ngā kaitatau.

Wā toha

Tīpakohia ngā ākonga hei tiritiri kua whakamahi i tētahi huarahi hanganga hei wehe i ngā pōpokorua. Kei roto pea i tēnei ko te whakamahi huānga, te whakamahi i te pātahitanga kōaro, te whakawehe rānei ki ngā wāhanga. Ki te kore ngā ākonga e whakaoti i te tūmahi i runga i te hanganga, whakatauiria tēnei mō ngā ākonga.

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

Ka taea te whakamahi, te whakaaturanga me te whakawhānui i ngā tauira me ngā pātahitanga i roto i ngā huarahi maha.

He ōrite te tangohanga tukurua ki te wehewehenga.

Hono

Hei whakaoti i te tūmahi tuatahi, ka taea te whakauru i ngā kaioma katoa ki ngā haupae pēnei ki te kimi i te maha o ngā haupae:

XXXX
XXXX
XXXX
XXXX
XXXX
XXXX
XXXX
XXXX
XXXX
XXXX

He aha tēnei e kōrero ana ki a koe mō te whanaungatanga i waenga i te whakareatanga me te wehewehenga?

Whainga ako Ka ako ngā mokopuna ki te:

Tohu, whakamārama hoki he pēhea te tohu o te huānga i tētahi rōpū.

Whakaaturia tētahi huānga i runga i te hanganga.

Whakamahia te whakarōpū hei whakatika i ngā raru whakawehenga me te kore tatau i ia ahanoa.

Whakaotia ngā raruraru whakawehenga e pā ana ki te whakawehe i tētahi tau mati-rua ki te tau mati-kotahi kāore he toenga.

Whakaotia ngā raruraru whakawehenga mā te whakamahi i tētahi rautaki whakahekenga wāhanga.

Rapanga Motuhake

Kai te haupae ngā kaiomaoma hai tīmata i te rēhi.

E 65 ngā tāngata, ā, ka uru rātau ki ngā haupae e 5.
E hia katoa ngā haupae?

E 42 ngā tāngata, ā, ka uru rātau ki ngā haupae o te 3.
E hia katoa ngā haupae?

E 78 ngā tāngata, ā, ka uru rātau ki ngā haupae o te 6.
E hia katoa ngā haupae?

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:
h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:
h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:
h.t., $65 \div 5$.

Ngā tini mata o te Reo Pāngarau

Wehewehe, whakawehe, huānga, pātahitanga kōaro, maha, haupae, tīwae.

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 7

Kei te kōmaka a Lani i ngā pere ki roto i ngā pōkai hei hoko i te rā māketē.

E 106 ana pere hei puru ki roto i ngā pōkai e 8.
E hia ngā pere kei roto i ia pōkai?
E hia ka toe?

E 230 ana pere hei puru ki roto i ngā pōkai e 15.
E hia ngā pere kei roto i ia pōkai?

E 260 ana pere hei puru ki roto i ngā pōkai e 18.
E hia ngā pere kei roto i ia pōkai?

Hei āwhina i te kaiako

I mua i tō whakarewatanga i te tūmahi,

Whakangāwari i ngā ākonga kia mōhio he tere ake, he ngāwari ake hoki te whakamahi i te hanganga hei whakaoti i ngā tūmahi i te tatau, i te whakamahi rānei i te whakamātautau me te hapa.

E arotahi ana tēnei tūmahi ki te whakawehe i tētahi kohinga ahanoa ki te maha o ngā rōpū ōrite. E kīia ana tēnei ko te wehenga tiritiri, te wehenga wāhanga rānei.

Kia mōhio mēnā kei te wehe ngā ākonga ki ētahi wāhanga hei whakaoti i ngā tūmahi.

Tūmanako kia tāhopu ngā ākonga mā te tuhi wehewehenga.

Mō te tūmahi takitahi, me whakawātea ngā kaitatau.

Wā toha

Tīpakohia ngā ākonga hei tiritiri ko wai kua whakamahi i te whakawehe ki ngā wāhanga, i tētahi rongoā wāhanga wāhanga rānei. Ki te kore ngā ākonga e whakaoti i te tūmahi i runga i te hanganga, whakatauirā tēnei mō ngā ākonga.

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

E ai ki tā mātou pūnaha tau i runga anō i ngā whakarōpūtanga tekau, tekau pūtake rānei. Ka taea te wehe i ngā whakarōpūtanga o tētahi, tekau, rau, me ngā mano i roto i ngā huarahi rerekē.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

He āhuatanga tauhanga e whakaahua ana i te tāpiritanga me te whakareatanga hei mahi. Koinei ngā āhuatanga whakawhitiwhiti, pāhono, tohatoha, me te tuakiri. He pātahitanga kōaro tō te tāpiritanga me te tangohanga me te whakareatanga me te wehenga.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

Ko te tikanga o te āhuatanga whakawhitiwhiti he ōrite te 3×6 ki te 6×3 nō reira $6 \times 3 = 3 \times 6$.

Hono

I whakaaro a Lani ka kitea e ia e hia ngā pere kei roto i ia pōkai mā te whakamahi i tēnei aratuka:

$$106 \div 8 =$$

$$80 \div 8 = 10$$

$$24 \div 8 = 3$$

$$10 + 3 = 13 \text{ me te toenga o te } 2$$

E mahi ana tēnei?

Me pēhea e whakatika ai a Lani i ērā atu raruraru?

Whainga ako Ka ako ngā mokopuna ki te:

Whakaaturia me te whakamārama he pēhea te tohu o tētahi huānga, tauira horahanga rānei i tētahi rōpū i runga i te hanganga.

Whakaotia ngā raruraru wehewehenga me te toenga.

Whakaotia ngā raruraru whakawehenga mā te whakamahi i tētahi rautaki whakahekenga wāhanga.

Rapanga Motuhake

Whakaotia ngā raru i raro nei:

$$117 \div 9 =$$

$$156 \div 12 =$$

$$352 \div 32 =$$

$$294 \div 21 =$$

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:

h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:

h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:

h.t., $65 \div 5$.

Ngā tini mata o te Reo Pāngarau

Wehewehe, whakawehe, huānga, pātahitanga kōaro, maha, haupae, tiwae.

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 8

Kei te hanga a Sose rāua ko Lagi i te ula lole mo te whiwhinga whiwhinga.

E 105 ō rātou pae tiakarete iti.

E hiahia ana rātau ki te puru kia 7 ngā pae tiakarete iti ki ia ula lole.

E hia ngā ula lole ka taea e rātou te puru i ngā pae tiakarete?

E 224 a rātau mīhini mackintosh.

E hiahia ana rātau ki te puru kia 16 ngā mīhini mackintosh ki ia ula lole.

E hia ngā ula lole ka taea e rātou te puru i ngā mīhini mackintosh?

E 461 ō rātou pahū huarākau.

E hiahia ana rātau ki te puru kia 21 ngā hua rākau ki ia ula lole.

E hia ngā ula lole ka taea e rātou te puru i ngā hua rākau?

Hei āwhina i te kaiako

Whakangāwari i ngā ākonga kia kite he tere, he ngāwari ake hoki te whakamahi i te hanganga hei whakaoti i ngā tūmahi i te tiritiri, i te whakamahi rānei i te whakamātautau me te hapa.

E arotahi ana tēnei tūmahi ki te tango auau i tētahi rōpū mai i te tau tapeke kia kore rā anō he mea e toe ana. E kīia ana tēnei ko te wehenga tangohanga, te wehenga whakahua rānei.

Kia mōhio mēnā ka whakamahi ngā ākonga i ngā wāhanga hei wehewehe, mēnā rānei ka tātuhi i te pātahitanga kōaro i waenga i te whakareatanga me te wehewehenga.

Wā toha

Tīpakohia ngā ākonga hei tiritiri nā wai i whakamahi i tētahi huarahi hanganga hei wehe i ngā mīhini ki ngā wāhanga, ki te wehe rānei i ngā wāhanga, ki te whakamahi rānei i te pātahitanga kōaro ki te whakareatanga. Ki te kore ngā ākonga e whakaoti i te tūmahi i runga i te hanganga, whakatauiria tēnei mō ngā ākonga.

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

E ai ki tā mātou pūnaha tau i runga anō i ngā whakarōpūtanga tekau, tekau pūtake rānei. Ka taea te wehe i ngā whakarōpūtanga o tētahi, tekau, rau, me ngā mano i roto i ngā huarahi rerekē.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

He āhuatanga tauhanga e whakaahua ana i te tāpiritanga me te whakareatanga hei mahi. Koinei ngā āhuatanga whakawhitiwhiti, pāhono, tohatoha, me te tuakiri. He pātahitanga kōaro tō te tāpiritanga me te tangohanga me te whakareatanga me te wehenga.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

Ko te tikanga o te āhuatanga whakawhitiwhiti he ōrite te 3×6 ki te 6×3 nō reira $6 \times 3 = 3 \times 6$.

Hono

E whakaaro ana a Lagi ka taea e ia te mahi e hia ngā ula lole ka taea e ia mā te huri i te raruraru ki:

$$7 \times \underline{\quad} = 105$$

Ka mahi tēnei?

Whainga ako Ka ako ngā mokopuna ki te:

Whakaahuatia he pēhea te tohu o tētahi huānga, tauira horahanga rānei i tētahi rōpū i runga i te āhua hanganga.

Whakaotia ngā tūmahi whakawehenga mā te whakamahi i ngā wāhanga wāhanga.

Whakaotia ngā tūmahi whakawehenga mā te whakamahi i te pātahitanga kōaro i waenga i te wehenga me te whakareatanga.

Rapanga Motuhake

Kei te hanga a Sose rāua ko Lagi i te ula lole mo te whiwhinga whiwhinga.

E 256 ō rātou paheketanga huarākau.

E hiahia ana rātau ki te puru kia 8 ngā hua rākau ki runga i te ula lole.

E hia ngā ula lole ka taea e rātou?

E hiahia ana rātau ki te puru kia 16 ngā hua rākau ki runga i te ula lole.

E hia ngā ula lole ka taea e rātou?

E hiahia ana rātau ki te puru i ngā hua rākau e 4 ki runga i te ula lole.

E hia ngā ula lole ka taea e rātou?

He aha ngā tauira e kitea ana e koe?

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakarōpū i ngā tau i roto i ngā huarahi mutunga kore - ka noho ōrite tonu te tau i roto i tētahi huinga ahakoa pēhea te whakaritenga, te whakaaturanga rānei.

Ka taea e te huānga te tohu i tētahi rōpū.

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

*Whakarea ki te 10, ki te 100, ki te 1,000:
h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.*

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:
h.t., 5×46 , 8×7 .

*Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:
h.t., $65 \div 5$.*

Ngā tini mata o te Reo Pāngarau

Wehewehe, ōrite ngā rōpū, te wehenga, te huānga, ngā huinga.

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 9

Whakaotia ngā raru i raro nei:

$$208 \div 13 =$$

$$285 \div 19 =$$

$$572 \div 26 =$$

Hei āwhina i te kaiako

Kia mōhio mēnā ka whakamahi ngā ākonga i ngā wāhanga hei wehewehe, mēnā rānei ka tātuhi i te pātahitanga kōaro i waenga i te whakareatanga me te wehewehenga.

Tūmanako kia whakamahi ngā ākonga i te reo e pā ana ki te wehewehenga.

Mō te tūmahi takitahi, me whakawātea ngā kaitatau.

Wā toha

Tīpakohia ngā ākonga hei tiritiri kua whakamahi i tētahi huarahi hanganga ki te wehewehe, tae atu ki te whakawehe ki ngā wāhanga, te whakamahi rānei i te pātahitanga kōaro ki te whakareatanga.

Hono

He aha ngā tau ka hurihia ēnei ina whakamahi i te āhuatanga whakawehe/tohatoha wāhanga?

$$284 \div 13 =$$

$$336 \div 21 =$$

Tonoa ngā tamariki kia kōrerorero i ngā pahekotanga tau ka taea me te kore e whakaoti i ēnei.

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

E ai ki tā mātou pūnaha tau i runga anō i ngā whakarōpūtanga tekau, tekau pūtake rānei. Ka taea te wehe i ngā whakarōpūtanga o tētahi, tekau, rau, me ngā mano i roto i ngā huarahi rerekē.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

He āhuatanga tauhanga e whakaahua ana i te tāpiritanga me te whakareatanga hei mahi. Koinei ngā āhuatanga whakawhitiwhiti, pāhono, tohatoha, me te tuakiri. He pātahitanga kōaro tō te tāpiritanga me te tangohanga me te whakareatanga me te wehenga.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

Ko te tikanga o te āhuatanga whakawhitiwhiti he ōrite te 3×6 ki te 6×3 nō reira $6 \times 3 = 3 \times 6$.

Whainga ako Ka ako ngā mokopuna ki te:

Whakaahuatia he pēhea te tohu o tētahi huānga, tauira horahanga rānei i tētahi rōpū i runga i te āhua hanganga.

Whakaotia ngā tūmahi whakawehenga mā te whakamahi i ngā wāhanga wāhanga.

Whakaotia ngā tūmahi whakawehenga mā te whakamahi i te pātahitanga kōaro i waenga i te wehenga me te whakareatanga.

Rapanga Motuhake

E mahi ana a Hōri i ngā pēke pai mo tōna rā whānau.

E 102 ngā M&M a Hōri hei puru ki roto i ngā pēke e 12.

E hia ngā M&M kei ia pēke?

E hia ka toe?

E 149 ngā pīni tiēre a Hōri hei puru ki roto i ngā pēke e 12.

E hia ngā pīni tiēre kei roto i ia pēke?

E hia ka toe?

E 53 ngā lollipop a Hōri. E hiahia ana a ia ki te puru i te 3 ki ia pēke.

E hia ngā pēke ka taea e ia te whakakī?

E hia ka toe?

E 75 ngā hua rākau a Hōri. E hiahia ana a ia ki te puru i te 4 ki ia pēke.

E hia ngā pēke ka taea e ia te whakakī?

E hia ka toe?

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:

h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:

h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:

h.t., $65 \div 5$.

Ngā tini mata o te Reo Pāngarau

Wehewehe, ōrite ngā rōpū, te wehenga, te huānga, ngā huīnga, ngā wāhanga wāhanga, ngā pātahitanga kōaro.

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 10

Kei te whakaoti a Moameta i ngā raruraru e whai ake nei:

$$21 \times 45 = 945$$

$$45 \times 21 =$$

$$945 \div 21 =$$

$$945 \div 45 =$$

E kī ana a ia kāore e hiahiatia e ia te mahi i ngā whakautu e mōhio kē ana ia ki a rātou.

E whakaae ana koe ki a Moameta?

He aha tāu e kite nei?

Hangaia he whakaaro me te whakamahi i ngā tau me ngā rauemi hei tūhura me te whakamātau i te whakaaro.

Hei āwhina i te kaiako

Me whakawātea ngā kaitatau, pepa mātiti rānei hei whakamahi mā ngā ākonga ki te tūhura me te whakamātau i ā rātou whakaaro.

Kia mōhio mēnā ka taea e ngā ākonga te tautohu he ōrite te hua o ngā whārite, ā, ka taea e koe te whakaoti i te tūmahi wehenga me te kore tātai.

Ina oti i ngā ākonga ngā whakaaro, tuhia tēnei ki te papa, ka whakahau i ngā ākonga ki te pātai me te mahi tahi me rātou ki te whakamahine i te whakaaro me te whakapai ake mā te reo pāngarau.

Hoatu he wā ki ngā ākonga ki te tūhura i ā rātou whakaaro me te whakamātau ki ētahi atu tau me ngā rauemi raima.

Mō te tūmahi takitahi, me whakawātea ngā kaitatau, ngā kupiki rānei.

Whakaaro Matua o te Ao Pāngarau

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

Ka taea te whakamahi, te whakaaturanga me te whakawhānui i ngā tauira me ngā pātahitanga i roto i ngā huarahi maha.

He pātahitanga kōaro tō te whakareatanga me te wehewehenga.

Wā toha

Tīpakohia ngā ākonga ki te tiritiri ko wai e mōhio ana, e whakamārama ana i te whanaungatanga kōaro o te whakarea me te wehewehenga. Ki te whakamātau i ngā whakaaro, tīpakohia ngā ākonga ki te tiritiri i runga i ngā whakaaro i roto i te raupapa e whai ake nei:

Ngā tohenga e whakamahi ana i ngā tauira tau tauwhāiti (ngā momo tau rerekē).

Ngā tohenga e whakamahi ana i tētahi tauira raima tauwhāiti (he huānga, tauira rānei).

Ko ngā tohenga e whakamahi ana i tētahi tauira raima hei whakawhānui (e tohu ana ka mahi te huānga mō te hua ahakoa te nui, te iti rānei).

Hono

E mahi ana te whakaaro mō ētahi atu mahi?
[tāpiritanga/tangohanga, whakareatanga/tangohanga, tāpiritanga/wehenga]

Whakaaturia tō whakaaro mā te whakamahi i ngā tohu [āhua, pū rānei] i roto i tētahi rerenga tau mā te whakamahi i te mēnā me te kātahi...

Mēnā $h \times p = k$ kātahi ka $k \div p = h$ me $k \div h = p$ me te $p \times h = k$

Whainga ako Ka ako ngā mokopuna ki te:

Whakawhanake i tētahi whakaaro mō te whanaungatanga o te whakareatanga me te wehewehenga.

Tautuhia he pono te pātahitanga kōaro mō te whakareatanga/wehenga me te tāpiritanga/tangohanga.

Tūhura me te whakamataui i tētahi whakaaro mā te whakamahi i ngā rauemi.

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:

h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:

h.t., 5×46 , 8×7 .

*Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:
h.t., $65 \div 5$.*

Ngā tini mata o te Reo Pāngarau

Whakarea, ōrite, wehewehe, whakareatanga, huinga o, huānga, whanaungatanga kōaro.

Rapanga Motuhake

Hangaia he huānga me te whakapūkete i ēnei e whai ake nei hei rerenga tau whakarea, whakawehenga hoki:

9 mā te 6

12 mā te 8

7 mā te 15

18 mā te 9

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 11

Kei te pōkai a Iosefa i te panikeke hei hoko i te hākari Pasifika.

E 130 ngā panikeke i mahia e Iosefa.
He rite tonu tana tiritiri i runga i ngā paepae nui e 8.
He aha te hautanga o te panikeke kei ia paepae?
E hia ngā panikeke kei ia paepae?
E hia e toe ana?

Kua mahia e Iosefa tētahi atu 57 panikeke.
He ōrite tana tiritiri i runga i ngā paepae e 6.
He aha te hautanga o te panikeke kei ia paepae?
E hia ngā panikeke kei ia paepae?
E hia e toe ana?

Hei āwhina i te kaiako

Whakangāwari i ngā ākonga kia mōhio ina kōrero koe mō tētahi huinga ahanoa, kotahi te katoa o te huinga, ā, kei te kitea e rātou tētahi hautanga o taua huinga. Me aro atu hoki ki te tautapa hei whakaingoa i te mea kua wehea te katoa.

Tirohia ngā ākonga e āhei ana ki te tāutu i te whanaungatanga i waenga i te kimi hautanga o tētahi huinga me te wehewehenga.

Wā toha

Kōwhiria ētahi ākonga kia tukuna mai ā rātou kōrero mō te wāwāhi i te panikeke mā te whakamahi i ngā hautau wāwāhi, i te hononga tauaro rānei i waenga i te whakarea me te whakawehe.

Hono

He aha te ture ka taea e koe te whakamahi hei kimi i tētahi hautanga wae o tētahi huinga?

Me pēhea e kitea ai tētahi haurua? Me pēhea koe e kite ai i te whakatekau? Me pēhea koe e kite ai i te rima tekau?

E mahi ana tēnei i ngā wā katoa?

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

Ka taea te whakamahi, te whakaaturanga me te whakawhānui i ngā tauira me ngā pātahitanga i roto i ngā huarahi maha.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

He ōrite te tangohanga tukurua ki te wehewehenga.

Whainga ako Ka ako ngā mokopuna ki te:

Wehea tētahi huinga ahanoa mā te ono me te waru.

Kimihia te ono o te huinga.

Kimihia te waru o te huinga.

Wehewehea mā te whakamahi i ngā wāhanga wāhanga.

Whakaotia ngā tūmahi whakawehenga mā te whakamahi i te pātahitanga kōaro i waenga i te whakareatanga me te wehenga.

Tautuhia te hononga i waenga i te wehenga me ngā hautanga.

Rapanga Motuhake

E 86 ngā kapu i tunua e te kaihanga parāoa.
Ka tiria e ia ki runga i ngā paepae e 5.
He aha te hautanga o ngā kapu kei ia paepae?
E hia ngā keke kai ia paepae?
E hia e toe ana?

E 65 ngā kapu i tunua e te kaihanga parāoa.
He ōrite tana tiritiri i runga i ngā paepae e 3.
He aha te hautanga o ngā kapu kei ia paepae?
E hia ngā keke kai ia paepae?
E hia e toe ana?

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:

h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:

h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:
h.t., $65 \div 5$.

Kimi i te hautanga o tētahi tauoti, he tauoti te whakautu mā te whakamahi i ngā meka whakarea, me ngā meka whakawehe:
h.t., 1—4 of 40.

Ngā tini mata o te Reo Pāngarau

Whakarea, ōrite, whakareatanga, rota, huinga o, wehewehe, wehenga, tiritiri tika, hautanga, hautanga, tuawaru, tuawaru.

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Rapanga 12

Kei te whakatō rīwai ana ngā akomanga. E ngana ana rātau ki te mahi ko tēhea karaehe te nuinga o ngā tipu rīwai.

Ko wai ka whiwhi i te nuinga?

Kotahi te tuatoru o te pēke e 39 ngā rīwai kākano
E toru hauwhā o te pēke e 32 rīwai kākano
E toru waru o te pēke e 48 rīwai kākano

Hei āwhina i te kaiako

Whakangāwari i ngā ākonga kia mōhio ina kōrero koe mō tētahi huinga ahanoa, kotahi te katoa o te huinga, ā, kei te kitea e rātau tētahi hautanga o taua huinga. Me aro atu hoki ki te tautapa hei whakaingoa i te mea kua wehea te katoa.

Tirohia ngā ākonga e āhei ana ki te tāutu i te whanaungatanga i waenga i te kimi hautanga o te huinga me te wehenga me te hunga e mōhio ana me whakarea koe mā te tau.

Wā toha

Tīpakohia ngā ākonga hei tiritiri ko wai kua wehe i ngā rīwai mā te whakamahi i ngā wehenga wāhanga, i te whanaungatanga kōaro rānei i waenga i te whakareatanga me te wehenga, kātahi ka whakarea kia kitea te huinga.

Hono

Me pēhea e huri ai koe i te ture i whakamahia e koe ki te kimi i tētahi hautanga wae o tētahi huinga kia kitea ai te $\frac{3}{4}$, te $\frac{3}{8}$ rānei?

E mahi ana tēnei i ngā wā katoa?

Whakaaro Matua o te Ao Pāngarau

Ka taea te whakawehe me te whakakotahi i ngā tau hei whakaoti i ngā raruraru tāpiritanga me te tangohanga matatini ake, me ngā raruraru whakarea me te whakawehenga ngāwari.

He maha ngā huarahi ka taea te whakaatu i ngā tau.

E whakaatu ana ngā whārite i ngā pātahitanga ōritetanga i waenga i ngā wāhanga i ia taha o te tohu ōrite.

Ka taea te whakamahi, te whakaaturanga me te whakawhānui i ngā tauira me ngā pātahitanga i roto i ngā huarahi maha.

He ōrite te tāpiritanga tukurua ki te whakareatanga.

He ōrite te tangohanga tukurua ki te wehewehenga.

Whainga ako Ka ako ngā mokopuna ki te:

Wehea tētahi huinga ahanoa kia toru, whā, me te waru.

Kimihia tētahi hautanga wae o tētahi huinga.

Kimihia he hautanga o te huinga.

Tautuhia te hononga i waenga i te wehenga me ngā hautanga.

Rapanga Motuhake

Tīpakohia tētahi o ngā tūmahi aromatawai e whai ake nei (āpitihia ki te mutunga o te tuhinga) hei ngohe takitahi:

Aromatawai 1: Whakarea me te Wehenga

Aromatawai 2: Whakreatanga me te Wehenga

Ngā tini mata o te Marautanga

Tau 4 Meka Matua

Whakaputa maharatanga meka whakarea, meka whakawehe 4, 6, 9, me ngā 10

Whakarea ki te 10, ki te 100, ki te 1,000:

h.t., $10 \times 100 = 1,000$ $32 \times 100 = 3,200$.

Ngā Paheko

Whakarea tau mati-1, mati-2 ki te tau matitahi:

h.t., 5×46 , 8×7 .

Whakawehe tauoti ki ngā tau mati-1 kāore he toenga:

h.t., $65 \div 5$.

Kimi i te hautanga o tētahi tauoti, he tauoti te

whakautu mā te

whakamahi i ngā meka

whakarea, me ngā meka

whakawehe:

h.t., 1—4 of 40.

Ngā tini mata o te Reo Pāngarau

Whakareatia, ōrite,
whakareatanga, maha,
huinga o, wehewehe,
tiritiri tika, hautanga,
hautanga, tuatoru,
hauwhā, tuawaru

Mā te kaiako

Ngā Rongoā me ngā paku hapa

Aromatawai 1: Whakarea me te Wehenga

Kei te whakaharatau a Nancy i ana tākainga netipōro mai i ngā tūnga e 5 i roto i te porohita. E 16 ngā tākainga i whakamātauria e ia i ia tūnga. E hia ngā tākainga i whakamātauria e ia?

E 72 ngā kākano kāreti a Liliana hei whakatō. He mokowā tōna mō ngā haupae e 4. E hia ngā kākano kāreti ka whakatōkia e ia i ia haupae?

I roto i te hōro, e 14 ngā haupae me ngā tūru e 19 i ia haupae? E hia ngā tūru i reira?

Tuhia ō ake raruraru whakareatanga, wehewehenga rānei. Whakaaturia me pēhea koe e whakaoti ai.

Aromatawai 2: Whakareatanga me te Wehenga

E whakaharatau ana a Hōria i ana tākainga whutupōro mai i ngā tūnga e 7 i runga i te papa tākaro. E 12 ngā tākainga i whakamātauria e ia i ia tūnga. E hia ngā tākainga i whakamātauria e ia?

E 78 ngā kākano putiputi a Raniera hei whakatō. He mokowā tōna mō ngā haupae e 3. E hia ngā kākano putiputi ka whakatōkia e ia i ia haupae?

I roto i te hōro, e 18 ngā haupae me ngā tūru 13 i ia haupae? E hia ngā tūru i reira?

Tuhia ō ake raruraru whakareatanga, wehewehenga rānei. Whakaaturia me pēhea koe e whakaoti ai.