



Te Poutama Tau

Āpitihanga Uiui Rautaki 1

Rauemi:

Kia 20 ngā porotiti, kia 2 ngā kāri he A5 te rahi

| | Aronga | Ngā mahi me ngā kōrero a te pouako | Hei ārahi i te aromatawai | Hei tauira rautaki |
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| Pātai 1 | Tāpiri/Tango Kaupae 1 Tatau pāngā tahi 1 – 7 | Whakaputua ētahi taonga (pēnei i te porotiti) ki mua i te tamaiti. “Tangohia (Homai, Tīkina) kia whitu ngā porotiti.” | Ki te kore e taea te tatau pāngā tahi ki te 9, kei te Kaupae 0 o Te Mahere Tau. Me mutu ngā pātai i konei. Mēnā e tika ana te tatau pāngā tahi, me haere tonu ki te Pātai 2. | 1, 2, 3, 4, 5, 6, 7 |
| Pātai 2 | Tāpiri/Tango Kaupae 2-3, 4 Whanaketanga 1a/1e Tatau ā-hinengaro Tatau ake 3 + 5 | Hoatu ētahi porotiti e 3 ki tētahi ringa o te tamaiti, kia 5 ki tētahi. Katia ngā ringa kia kore ai ngā porotiti e kitea. “Anei ētahi porotiti e toru. Anei ētahi atu porotiti e rima. E hia katoa ngā porotiti?” Mēnā he uaua te tatau ā-hinengaro i ngā porotiti, e pai ana kia huakina ngā ringa kia kitea ā-karu. | Ki te kore e taea: <ul style="list-style-type: none"> • Kei te Kaupae 1 o Te Mahere Tau. • Kāore anō kia eke ki te Taumata 1a o Ngā Whanaketanga. Me mutu ngā pātai i konei. Mēnā ka tika mā te tatau i ngā porotiti: <ul style="list-style-type: none"> • Kei te Kaupae 2 o Te Mahere Tau. • Kei te Taumata 1a o Ngā Whanaketanga. Me mutu ngā pātai i konei. Mēnā ka tika mā te tatau ā-hinengaro, mā tētahi rautaki hōhonu kē atu, me haere tonu ki te Pātai 3. | 1, 2, 3, 4, 5, 6, 7, 8 (me te pā anō o te mati ki ia porotiti) 1, 2, 3, 4, 5, 6, 7, 8 (tatau ā-hinengaro) 3... 4, 5, 6, 7, 8 (tatau ake) 5... 6, 7, 8 (tatau ake) 3 + 5 = 8 (he meka mōhio) |

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| <p>Tāpiri/Tango</p> <p>Kaupae 3, 4, 5 (tōmu) Whanaketanga 1e, 2a</p> <p>Tatau ā-hinengaro Tatau ake Wāwāhi tau</p> <p>8 + 5</p> | <p>Uhia kia 8 ngā porotiti ki raro i tētahi kāri, kia 5 ki raro i tētahi atu kāri.</p> <p>Whakaaturia ngā porotiti ki te tamaiti, ka uhi anō ai.</p> <p>“E 8 ngā porotiti kei raro i tēnei kāri. E 5 kei raro i tēnei. E hia katoa ngā porotiti?”</p> <p>“I pēhea koe i mōhio ai?”</p> <p>“Whakamāramahia mai ō mahi.”</p> | <p>Ki te kore e taea:</p> <ul style="list-style-type: none"> Kei te Kaupae 3 o Te Mahere Tau. Kei te Taumata 1e o Ngā Whanaketanga. Me mutu ngā pātai i konei. <p>Mēnā ka tika mā te tatau ake i te 8, i te 5 rānei:</p> <ul style="list-style-type: none"> Kei te Kaupae 4 o Te Mahere Tau. Kei te Taumata 1e o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 4 me te 5.</p> <p>Mēnā ka tika mā tētahi rautaki wāwāhi tau:</p> <ul style="list-style-type: none"> Kei te Kaupae 5 (tōmu) o Te Mahere Tau, kei tua ake rānei. Kei te Taumata 2a o Ngā Whanaketanga <p>Haere tonu ki te Pātai 4 me te 5.</p> | <p>8 ... “9, 10, 11, 12, 13” 5 ... “6, 7, 8, 9, 10, 11, 12, 13”</p> <p>$8 + 2 + 3 = 10 + 3 = 13$ $5 + 5 + 3 = 10 + 3 = 13$ $8 + 8 = 16 - 3 = 13$ $8 + 5 = 13$ (he meka mōhio)</p> |
| <p>Whakarea/Whakawehe</p> <p>Kaupae 3, 4, 5 (tōmu) Whanaketanga 1e, 2a</p> <p>5 × 6</p> | <p>Whakaaturia te rapanga ki te ākonga. Tohua tētahi rārangī (kapa) o ngā kapu, ka pātai ai:</p> <p>“E hia ngā kapu kei ia rārangī?”</p> <p>Tohua ia rārangī o ngā kapu, ka pātai ai i te pātai:</p> <p>“E hia ngā rārangī o ngā kapu?”</p> <p>Kātahi ka pānui i te pātai tuatoru.</p> <p>“E hia katoa ngā kapu?”</p> | <p>Mēnā ka tatauria ā-tahi:</p> <ul style="list-style-type: none"> Kei te Kaupae 3 o te Mahere Tau, mō te whakarea me te whakawehe. Kei te Taumata 1a/1e o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 5.</p> <p>Mēnā ka tatauria māwhitiwhiti:</p> <ul style="list-style-type: none"> Kei te Kaupae 4 o te Mahere Tau, mō te whakarea me te whakawehe. Kei te Taumata 1e o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 5.</p> <p>Mēnā ka whakamahia he rautaki tāpiri, he meka mōhio rānei te 5 × 6:</p> <ul style="list-style-type: none"> Kei te Kaupae 5 o te Mahere Tau, mō te whakarea me te whakawehe, kei tua atu rānei. Kei te Taumata 2a o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 5.</p> | <p>1, 2, 3 ... 30</p> <p>$5 + 10, 15 \dots 30$ $3, 6, 9, \dots 30$ $6, 12, 18, 24, 30$</p> <p>$5 + 5 = 10; 10 + 5 = 15; \dots 25 + 5 = 30$ $5 + 5 = 10; 10 + 10 + 10 = 30$ $5 \times 6 = 30$ (meka mōhio)</p> |

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| <p>Pātai 5</p> <p>Pānga Riterite</p> <p>Kaupae 4, 5 (tōmua) Whanaketanga 1e, 2a</p> <p>$24 \div 4$</p> <p>$\frac{1}{4} \text{ o te } 24$</p> | <p>Whakaaturia te rapanga mō tēnei pātai, ka pānui ai.</p> <p>Hoatu kia 24 ngā porotiti mēnā e hiahiatia ana.</p> <p>“E 24 ngā pāua i mau i a Horowai mā. Ka hoatu tētahi hauwhā o ngā pāua ki ia whānau e noho pātata ana. E whā ngā whānau. E hia ngā pāua i hoatu ki ia whānau?”</p> | <p>Mēnā ka tohaina ā-tahi ngā pāua (ā-ringa, ā-hinengaro rānei):</p> <ul style="list-style-type: none"> Kei te Kaupae 4 o te Mahere Tau, mō te whakarea me te whakawehe. Kei te Taumata 1e o Ngā Whanaketanga. Me mutu ngā pātai i konei. <p>Mēnā ka whakamahia tētahi rautaki tāpiri:</p> <ul style="list-style-type: none"> Kei te Kaupae 5 (tōmua) o te Mahere Tau, mō te whakarea me te whakawehe. Kei te Taumata 2a o Ngā Whanaketanga. <p>Mēnā ka whakamahia he rautaki whakarea/whakawehe, he meka mōhio rānei:</p> <ul style="list-style-type: none"> Kei te Kaupae 5 o te Mahere Tau, mō te whakarea me te whakawehe, kei tua atu rānei. Kei te Taumata 2a o Ngā Whanaketanga, kei tua atu rānei. <p>Haere tonu ki te Pātai 6.</p> | <p>$6 + 6 = 12; 12 + 6 = 18; 18 + 6 = 24$</p> <p>$6 + 6 = 12; 12 + 12 = 24$</p> <p>$24 \div 2 = 12; 12 \div 2 = 6$</p> <p>$6 \times 4 = 24, 24 \div 4 = 6$ (he meka mōhio)</p> |
| <p>Pātai 6</p> <p>Tāpiri/Tango</p> <p>Kaupae 5 Whanaketanga 2e</p> <p>$82 - \square = 47$</p> <p>$47 + \square = 82$</p> | <p>Whakaaturia te rapanga mō tēnei pātai, ka pānui ai.</p> <p>“E 82 ngā hoiho i tatauria e Hīria e noho mai ana ki tātahi. E rua haora i muri iho, kua heke ki te 47 te maha o ngā hoiho. E hia ngā hoiho i kauhoe atu ki tua?”</p> | <p>Mēnā ka whakamahia he rautaki tāpiri tāruarua:</p> <ul style="list-style-type: none"> Kei te Kaupae 5 (tōmua) o te Mahere Tau, mō te tāpiri me te tango. Kei te Taumata 2a o Ngā Whanaketanga. <p>Mēnā ka whakamahia he rautaki wāwāhi tau:</p> <ul style="list-style-type: none"> Kei te Kaupae 5 o te Mahere Tau, mō te tāpiri me te tango, kei tua atu rānei Kei te Taumata 2e o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 7.</p> | <p>$47 + 10 = 57; 57 + 10 = 67; 67 + 10 = 77; 77 + 5 = 82;$ nō reira $47 + 35 = 82$</p> <p>$47 + 3 = 50; 50 + 30 = 80; 80 + 2 = 82$; hui katoa $47 + 35 = 82$</p> <p>$82 - 40 = 42; 42 + 5 = 47$, nō reira $82 - 35 = 47$</p> <p>$47 + 40 = 87; 87 - 5 = 82$, nō reira $47 + 35 = 82$</p> <p>$47 + 30 = 77; 77 + 5 = 82$, nō reira $47 + 35 = 82$</p> |

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| Patai 7 | Whakarea/Whakawehē Kaupae 5 Whanaketanga 2e 15×2 | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “E 2 ngā pākete pihikete i hokona e Atihana, 15 ngā pihikete kei ia pākete. E hia katoa ngā pihikete?” | Mēnā ka whakamahia he rautaki wāwāhi tau: <ul style="list-style-type: none"> Kei te Kaupae 5 o te Mahere Tau, mō te whakarea me te whakawehē, kei tua atu rānei. Kei te Taumata 2e o Ngā Whanaketanga. Haere tonu ki te Pātai 8. | $(10 \times 2) + (5 \times 2) = 20 + 10 = 30$ $15 \times 2 = 30$ (he meka mōhio) |
| Patai 8 | Pānga Riterite Kaupae 5 Whanaketanga 2e $\frac{3}{10} \text{ o te } 40$ | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “E 40 ngā rākau i whakatōngia e Amokura mā. E toru hautekau ($\frac{3}{10}$) o ngā rākau i tino karawhiua e Tāwhirimātea, ā, mate noa atu. E hia ngā rākau i mate?” | Mēnā ka whakamahia he rautaki wāwāhi tau: <ul style="list-style-type: none"> Kei te Kaupae 5 o te Mahere Tau, mō te pānga riterite, kei tua atu rānei. Kei te Taumata 2e o Ngā Whanaketanga. Haere tonu ki te Pātai 9. | $\frac{1}{10} \text{ o te } 40 = 4$, nō reira $\frac{3}{10} \text{ o te } 40 = 3 \times 4 = 12$ |
| Patai 9 | Tāpiri/Tango Kaupae 6 Whanaketanga 3a $274 - 58$ | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “E \$274 kei roto i te pūtea a Hera. Ka tangohia e ia te \$58 hei hoko i tētahi taonga. E hia tāra e toe ana i tana pūtea?” | Mēnā ka whakamahia he rautaki wāwāhi tau: <ul style="list-style-type: none"> Kei te Kaupae 6 (tōmua) o te Mahere Tau, mō te tāpiri me te tango, kei tua atu rānei. Kei te Taumata 3a o Ngā Whanaketanga. Haere tonu ki te Pātai 10. | $274 - 60 + 2 = 214 + 2 = 216$ $274 - 50 - 8 = 224 - 8 = 216$ $58 + 2 = 60; 60 + 40 = 100; 100 + 174 = 274$. Hui katoa ko te $58 + 216 = 274$ $274 - 54 = 220; 220 - 4 = 216$ |
| Patai 10 | Whakarea/Whakawehē Kaupae 6 Whanaketanga 3a $81 \div 3$ | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “E 81 katoa ngā pōro tēnehi a Akuira, e 3 kei roto i ia kēne. E hia katoa ngā kēne?” | Mēnā ka whakamahia he rautaki wāwāhi tau: <ul style="list-style-type: none"> Kei te Kaupae 6 (tōmua) o te Mahere Tau, mō te whakarea me te whakawehē, kei tua atu rānei. Kei te Taumata 3a o Ngā Whanaketanga. Haere tonu ki te Pātai 11. | $60 \div 3 = 20; 21 \div 3 = 7$, nō reira $81 \div 3 = 27$ |
| Patai 11 | Pānga Riterite Kaupae 6 Whanaketanga 3a $120:6 = \boxed{\quad} : 3$ | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “\$120 te utu mō ētahi tikiti e 6. E hia te utu mō ētahi tikiti e 3?” | Mēnā ka whakamahia he rautaki pānga riterite: <ul style="list-style-type: none"> Kei te Kaupae 6 (tōmua) o te Mahere Tau, mō te pānga riterite, kei tua atu rānei. Kei te Taumata 3a o Ngā Whanaketanga. Haere tonu ki te Pātai 12. | Ko te 3 te haurua o te 6, nō reira hauruatia te 120, ko te \$60 te utu. $\$120 \div 6 = \20 mō te tīkīti kotahi, nō reira $\$20 \times 3 = \60 mō ngā tikiti e toru. |

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| Pātai 12 | <p>Tāpiri/Tango</p> <p>Kaupae 6 Whanaketanga 3e $495 + \square = 803$</p> | <p>Whakaaturia te rapanga mō tēnei pātai, ka pānui ai.</p> <p>“I te wāhanga tuatahi o te kēmu kirikiti, e 495 ngā omanga a ‘Ngā Pōtae Pango’. I te mutunga o te kēmu e 803 te katoa o ngā omanga. E hia ngā omanga i riro i ‘Ngā Pōtae Pango’ i te wāhanga tuarua o te kēmu?”</p> | <p>Mēnā ka whakamahia he rautaki wāwāhi tau:</p> <ul style="list-style-type: none"> Kei te Kaupae 6 o te Mahere Tau, mō te tāpiri me te tango, kei tua atu rānei. Kei te Taumata 3e o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 13.</p> | $495 + 300 = 795; 795 + 8 = 803$, nō reira $495 + 308 = 803$ $495 + 5 = 500; 500 + 300 = 800; 800 + 3 = 803$. Hui katoa, $495 + 308 = 803$ |
| Pātai 13 | <p>Whakarea/Whakawehē</p> <p>Kaupae 6 Whanaketanga 3e $8.4 \div 6$</p> | <p>Whakaaturia te rapanga mō tēnei pātai, ka pānui ai.</p> <p>“E 8.4 rita te rōrahi o te wai arani hei whakakī i ētahi kapu e 6, kia ūrite te rōrahi ki ia kapu. E hia te rōrahi wai ki ia kapu?”</p> | <p>Mēnā ka whakamahia he rautaki wāwāhi tau me ngā meka whakarea:</p> <ul style="list-style-type: none"> Kei te Kaupae 6 o te Mahere Tau, mō te whakarea me te whakawehē, kei tua atu rānei. Kei te Taumata 3e o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 14.</p> | $6.0 \div 6 = 1.0; 2.4 \div 6 = 0.4$, nō reira $8.4 \div 6 = 1.4$ |
| Pātai 14 | <p>Pānga Riterite</p> <p>Kaupae 6 Whanaketanga 3e $2 \div 3$</p> | <p>Whakaaturia te rapanga mō tēnei pātai, ka pānui ai.</p> <p>“E rua ngā parehe i kainga e ētahi hoa tokotoru, he ūrite te rahi ka riro i ia tangata. E hia te hautanga parehe ka kainga e tēnā me tēnā?”</p> | <p>Mēnā ka whakamahia he rautaki pānga riterite:</p> <ul style="list-style-type: none"> Kei te Kaupae 6 o te Mahere Tau, mō te pānga riterite, kei tua atu rānei. Kei te Taumata 3e o Ngā Whanaketanga. <p>Mēnā e mōhio ana ki te ūrite o te tohu whakawehē (\div) me te tohu hautau (/):</p> <ul style="list-style-type: none"> Kei te Kaupae 6 o te Mahere Tau, mō te pānga riterite, kei tua atu rānei. Kei te Taumata 3e o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 15.</p> | Hautorutia ia parehe, e 6 katoa ngā wehenga, $\frac{6}{3} \div 3 = \frac{2}{3}$, nō reira e $\frac{2}{3}$ parehe mā ia tangata |
| Pātai 15 | <p>Tāpiri/Tango</p> <p>Kaupae 7 Whanaketanga 4a $5.33 - 2.9 = \square$</p> | <p>Whakaaturia te rapanga mō tēnei pātai, ka pānui ai.</p> <p>“E 5.33 mita te roa o te taura. Ka tapahia tētahi wehenga e 2.9 mita te roa. E hia mita e toe ana?”</p> | <p>Mēnā ka whakamahia he rautaki wāwāhi tau:</p> <ul style="list-style-type: none"> Kei te Kaupae 7 (tōmua) o te Mahere Tau, mō te tāpiri me te tango, kei tua atu rānei. Kei te Taumata 4a o Ngā Whanaketanga. <p>Haere tonu ki te Pātai 16.</p> | $2.9 + 0.1 = 3.0; 3.0 + 2.33 = 5.33$, nō reira $2.9 + 2.43 = 5.33$ $5.33 - 3 + 0.1 = 2.33 + 0.1 = 2.43$ |

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| Patai 16 | Whakarea/Whakawehē Kaupae 7 Whanaketanga 4a $83 \div 5$ | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “E 83kg āporo, ka wehea ki ētahi pēke e 5, kia ōrite te taumaha āporo ki ia pēke. E hia te taumaha o ia pēke āporo?” | Mēnā ka whakamahia he rautaki wāwāhi tau me ngā meka whakarea: <ul style="list-style-type: none">Kei te Kaupae 7 (tōmua) o te Mahere Tau, mō te whakarea me te whakawehē, kei tua atu rānei.Kei te Taumata 4a o Ngā Whanaketanga. Haere tonu ki te Pātai 17. | $50 \div 5 = 10; 30 \div 5 = 6; 3 \div 5 = 3/5$, nō reira $83 \div 5 = 16 \frac{3}{5}$ $83 \div 5 = 166 \div 10 = 16.6$ $5 \times 10 = 50; 5 \times 6 = 30$, nō reira $83 \div 5 = 16$ toenga 3 |
| Patai 17 | Pānga Riterite Kaupae 7 Whanaketanga 4a $\frac{3}{8} \text{ o te } 24 = \boxed{\quad}$ | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “E 24 ngā hēki. Ka pau te $\frac{3}{8}$ o ngā hēki ki te tunu pūrinī. E hia ngā hēki i pau ki te tunu pūrinī?” | Mēnā ka whakamahia he rautaki pānga riterite: <ul style="list-style-type: none">Kei te Kaupae 7 (tōmua) o te Mahere Tau, mō te pānga riterite, kei tua atu rānei.Kei te Taumata 4a o Ngā Whanaketanga. Haere tonu ki te Pātai 18. | $1/8 \text{ o te } 24 = 3$, nō reria $3/8 \text{ o te } 24 = 3 \times 3 = 9$ $24 \div 8 = 3; 3 \times 3 = 9$ |
| Patai 18 | Tāpiri/Tango Kaupae 7/8 Whanaketanga 4e $2.3 - 1.845 = \boxed{\quad}$ | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “E 2.3 mita (m) te teitei o te tuanui roto o te whare. 1.845 mita (m) te teitei o te tūranga pukapuka. E hia mita te rahi o te āputa ki waenganui i te tūranga pukapuka me te tuanui roto o te whare?” | Mēnā ka whakamahia he rautaki wāwāhi tau: <ul style="list-style-type: none">Kei te Kaupae 7 o te Mahere Tau, mō te tāpiri me te tango, kei tua atu rānei.Kei te Taumata 4e o Ngā Whanaketanga. Haere tonu ki te Pātai 19. | $1.845 + 0.155 = 2.0; 2.0 + 0.3 = 2.3$, nō reira $1.845 + 0.455 = 2.3$ $2.3 - 1.8 = 0.5; 0.5 - 0.045 = 0.455$ $\frac{2300}{1000} - \frac{1845}{1000} = \frac{455}{1000} = 0.455$ |
| Patai 19 | Whakarea/Whakawehē Kaupae 7/8 Whanaketanga 4e 0.125×12 | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “Ko te 0.125kg te taumaha o tētahi poro tiakareti. E hia te taumaha o ngā poro tiakareti 12?” | Mēnā ka whakamahia he rautaki wāwāhi tau me ngā meka whakarea: <ul style="list-style-type: none">Kei te Kaupae 7 o te Mahere Tau, mō te whakarea me te whakawehē, kei tua atu rānei.Kei te Taumata 4e o Ngā Whanaketanga. Haere tonu ki te Pātai 20. | $0.125 \times 10 = 1.25; 0.125 \times 2 = 0.25$, nō reira $0.125 \times 12 = 1.5\text{kg}$ $0.125 = \frac{1}{8}; \frac{1}{8} \times 12 = \frac{12}{8} = 1\frac{4}{8} = 1\frac{1}{2}$ |
| Patai 20 | Pānga Riterite Kaupae 7/8 Whanaketanga 4e $\$68 + \text{GST}$ | Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. “E \$68 te utu mō tētahi papawīra, i mua i te tāpiritanga o te tāke hokohoko (GST = 15%). Nō reira, e hia te utu hei hoko i te papawīra nei?” | Mēnā ka whakamahia he rautaki pānga riterite: <ul style="list-style-type: none">Kei te Kaupae 7 o te Mahere Tau, mō te pānga riterite, kei tua atu rānei.Kei te Taumata 4e o Ngā Whanaketanga. | $10\% \text{ o te } \$68 = \$6.80; 5\% \text{ o te } \$68 = \$3.40$, nō reira $15\% \text{ o te } \$68 = \$6.80 + \$3.40 = \10.20 . Tāpiria tērā ki te \$68, ko te \$78.20 te utu hoko |