Te Poutama Tau

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
Patai 1	**Tāpiri/Tango** Kaupae 1 Tatau pānga tahi 1 – 9	Whakaputua ētahi taonga (pēnei i te porotiti) ki mua i te tamaiti. **"Tangohia (Homai, Tīkina) kia iwa ngā porotiti."**	Ki te kore e taea te tatau pānga tahi ki te 9, kei te Kaupae 0 o Te Mahere Tau. Me mutu ngā pātai i konei. Mēnā e tika ana te tatau pānga tahi, me haere tonu ki te Pātai 2.	1, 2, 3, 4, 5, 6, 7, 8, 9
Patai 2	**Tāpiri/Tango** Kaupae 2-3, 4 Whanaketanga 1a/1e Te tatau ā-hinengaro Tatau ake 4 + 3	Hoatu ētahi porotiti e 4 ki tētahi ringa o te tamaiti, kia 3 ki tētahi. Katia ngā ringa kia kore ai ngā porotiti e kitea. **"Anei ētahi porotiti e whā. Anei ētahi atu porotiti e toru. 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: • 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: • 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 (me te pā anō o te mati ki ia porotiti) 1, 2, 3, 4, 5, 6, 7 (tatau ā-hinengaro) 4... "5, 6, 7" (tatau ake) 3... "4, 5, 6, 7" (tatau ake) 4 + 3 = 7 (he meka mōhio)

Pātai 3	**Tāpiri/Tango** Kaupae 3, 4, 5 (tōmua) Whanaketanga 1e, 2a Tatau ā-hinengaro Tatau ake Wāwāhi tau 8 + 6	Uhia kia 8 ngā porotiti ki raro i tētahi kāri, kia 6 ki raro i tētahi atu kāri. Whakaaturia ngā porotiti ki te tamaiti, ka uhi anō ai. **"E 8 ngā porotiti kei raro i tēnei kāri. E 6 kei raro i tēnei. E hia katoa ngā porotiti?"** **"I pēhea koe i mōhio ai?"** **"Whakamāramahia mai ō mahi."**	Ki te kore e taea: • Kei te Kaupae 3 o Te Mahere Tau. • Kei te Taumata 1e o Ngā Whanaketanga. Me mutu ngā pātai i konei. Mēnā ka tika mā te tatau ake i te 8, i te 5 rānei: • Kei te Kaupae 4 o Te Mahere Tau. • Kei te Taumata 1e o Ngā Whanaketanga. Haere tonu ki te Pātai 4 me te 5. Mēnā ka tika mā tētahi rautaki wāwāhi tau: • Kei te Kaupae 5 (tōmua) o Te Mahere Tau, kei tua ake rānei. • Kei te Taumata 2a o Ngā Whanaketanga Haere tonu ki te Pātai 4 me te 5.	 8 ... "9, 10, 11, 12, 13, 14" 6 ... "7, 8, 9, 10, 11, 12, 13, 14" 8 + 2 + 4 = 10 + 4 = 14 5 + 5 + 4 = 10 + 4 = 14 8 + 8 = 16; 16 − 2 = 14 8 + 6 = 14 (he meka mōhio)
Pātai 4	**Whakarea/Whakawehe** Kaupae 3, 4, 5 (tōmua) Whanaketanga 1e, 2a 5 × 5	Whakaaturia te rapanga ki te ākonga. Tohua tētahi rārangi (kapa) o ngā koru, ka pātai ai: **"E hia ngā koru kei ia rārangi?"** Tohua ia rārangi o ngā koru, ka pātai ai i te pātai: **"E hia ngā rārangi o ngā koru?"** Kātahi ka pānui i te pātai tuatoru. **"E hia katoa ngā koru?"**	Mēnā ka tatauria ā-tahi: • Kei te Kaupae 3 o te Mahere Tau, mō te whakarea me te whakawehe. • Kei te Taumata 1a/1e o Ngā Whanaketanga. Haere tonu ki te Pātai 5. Mēnā ka tatauria māwhitiwhiti: • Kei te Kaupae 4 o te Mahere Tau, mō te whakarea me te whakawehe. • Kei te Taumata 1e o Ngā Whanaketanga. Haere tonu ki te Pātai 5. Mēnā ka whakamahia he rautaki tāpiri, he meka mōhio rānei te 5 x 5: • 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. Haere tonu ki te Pātai 5.	1, 2, 3 … 25 5, 10, 15 … 25 5 + 5 = 10; 10 + 5 = 15; 15 + 5 = 20; 20 + 5 = 25 5 + 5 = 10; 10 + 10 = 20; 20 + 5 = 25 5 x 5 = 25 (meka mōhio)

Patai 5	**Pānga Riterite** Kaupae 4, 5 (tōmua) Whanaketanga 1e, 2a $18 \div 3$ $\frac{1}{3}$ o te 18	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. Hoatu kia 18 ngā porotiti mēnā e hiahiatia ana. **"E 3 ngā rohe o te papa tākaro nei. 18 katoa ngā tamariki. Ka wehea ngā tamariki kia ōrite te maha ki ia hautoru o te papa tākaro. E hia ngā tamariki ki ia hautoru?"**	Mēnā ka tohaina ā-tahi ngā pāua (ā-ringa, ā-hinengaro rānei): • 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. Mēnā ka whakamahia tētahi rautaki tāpiri: • Kei te Kaupae 5 (tōmua) o te Mahere Tau, mō te whakarea me te whakawehe. • Kei te Taumata 2a o Ngā Whanaketanga. Mēnā ka whakamahia he rautaki whakarea/ whakawehe, he meka mōhio rānei: • 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. Haere tonu ki te Pātai 6.	 6 + 6 = 12; 12 + 6 = 18 3 x 5 = 15; 15 + 3 = 18, nō reira 3 x 6 = 18 18 ÷ 3 = 6 (he meka mōhio)
Patai 6	**Tāpiri/Tango** Kaupae 5 Whanaketanga 2e $84 - \boxed{} = 57$ $57 + \boxed{} = 84$	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"E 84 aku kāri. Ka hoatu ētahi ki taku hoa, e 57 i toe mai. E hia ngā kāri i hoatu ki taku hoa?"**	Mēnā ka whakamahia he rautaki tāpiri tāruarua: • Kei te Kaupae 5 (tōmua) o te Mahere Tau, mō te tāpiri me te tango. • Kei te Taumata 2a o Ngā Whanaketanga. Mēnā ka whakamahia he rautaki wāwāhi tau: • 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. Haere tonu ki te Pātai 7.	57 + **10** = 67; 67 + **10** = 77; 77 + **3** = 80; 80 + **4** = 84; nō reira 57 + **27** = 84 57 + **3** = 60; 60 + **20** = 80; 80 + **4** = 84; hui katoa 57 + **27** = 84 84 − **30** = 54; 54 + **3** = 57, nō reira 84 − **27** = 57 57 + **30** = 87; 87 − **3** = 84, nō reira 57 + **27** = 84 57 + **20** = 77; 77 + **7** = 84, nō reira 57 + **27** = 84
Patai 7	**Whakarea/Whakawehe** Kaupae 5 Whanaketanga 2e $30 \div 5$	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"E 30 katoa ngā pōro tēnehi. Ka wehea ngā pōro kia 5 ngā pōro ki ia pēke. E hia ngā pēke?"**	Mēnā ka whakamahia he rautaki wāwāhi tau, e mōhio ana rānei ki te meka 5 x 6 = 30, 30 ÷ 5 = 6: • Kei te Kaupae 5 o te Mahere Tau, mō te whakarea me te whakawehe, kei tua atu rānei • Kei te Taumata 2e o Ngā Whanaketanga. Haere tonu ki te Pātai 8.	5 + 5 = 10; 10 + 10 + 10 = 30; 5 x 6 = 30, nō reira e 6 ngā pēke 5 x 4 = 20; 5 x 5 = 25; 5 x 6 = 30 30 ÷ 5 = 6 (he meka mōhio)

Patai 8	**Pānga Riterite** Kaupae 5 Whanaketanga 2e $\frac{3}{4} = \frac{1}{4} \times 3$	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. Tohua te pikitia tuatahi: **"Koia nei te kotahi hauwhā o tētahi tapawhā hāngai.** Tohua te pikitia tuarua: **"Nō reira he aha tēnei hautanga o taua tapawhā hāngai?"**	Mēnā ka whakamahia he rautaki wāwāhi tau: • 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.	E toru o ēnei e rite ana ki tēnei. Kotahi hauwhā, rua hauwhā, toru hauwhā. Nō reira koinei te toru hauwhā o te tapawhā hāngai. E toru whakareatanga te rahi ake o tēnei i tēnei. Nō reira mēnā ko te $\frac{1}{4}$ tēnei, ko te $\frac{3}{4}$ tēnei.
Patai 9	**Tāpiri/Tango** Kaupae 6 Whanaketanga 3a 366 – 122	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"E \$366 kei roto i te pūtea a Māia. \$122 kei roto i te pūtea a Tū. E hia tāra te rahinga ake o te pūtea a Māia i te pūtea a Tū?"**	Mēnā ka whakamahia he rautaki wāwāhi tau: • 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.	366 – **100** = 266; 266 – **22** = 244, nō reira 366 – **122** = 244 122 + **200** = 322; 322 + **44** = 366, nō reira 122 + **244** = 366 122 = $\frac{1}{3}$ o te 366. Nō reira ko te 122 x 2 = 244, koirā te $\frac{2}{3}$ o te 366
Patai 10	**Whakarea/Whakawehe** Kaupae 6 Whanaketanga 3a 13 x 7	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"\$13 te utu mō tētahi pukapuka kotahi. E hia te utu mō te whitu o ēnei pukapuka?"**	Mēnā ka whakamahia he rautaki wāwāhi tau: • Kei te Kaupae 6 (tōmua) o te Mahere Tau, mō te whakarea me te whakawehe, kei tua atu rānei. • Kei te Taumata 3a o Ngā Whanaketanga. Haere tonu ki te Pātai 11.	(10 x 7) + (3 x 7) = 70 + 21 = 91 12 x 7 = 84; 84 + 7 = 91 7 x 7 = 49, nō reira 14 x 7 = 98; 98 – 7 = 91
Patai 11	**Pānga Riterite** Kaupae 6 Whanaketanga 3a $\frac{1}{2}$ o te 36 < $\frac{1}{4}$ o te 80	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"E \$36 te pūtea a Tama. E \$80 te pūtea a Hine. Ka pau i a Tama te haurua o tana pūtea. Ka pau i a Hine te hauwhā o tana pūtea. Nā wai te whakapaunga moni nui rawa atu?"**	Mēnā ka whakamahia he rautaki pānga riterite: • 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.	(36 ÷ 2) = (20 ÷ 2) + (16 ÷ 2) = 10 + 8 = 18 80 ÷ 4 = 20 Nō reira he nui ake te ¼ o te pūtea a Hine.

Patai 12	**Tāpiri/Tango** Kaupae 6 Whanaketanga 3e ☐ + 148 = 176	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"Ka whakaurua e Hema te $148 ki tana pūtea pēke. Ka piki te tapeke o tana pūtea ki te $176. E hia tāra i roto i tana pūtea i te tīmatanga?"**	Mēnā ka whakamahia he rautaki wāwāhi tau: • 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. Haere tonu ki te Pātai 13.	176 – 146 = 30; 30 – 2 = 28 148 **+ 2** = 150; 150 **+ 26** = 176, nō reira, 148 **+ 28** = 176 (100 – 100) + (70 – 40) + (6 – 8) = 30 – 2 = 28
Patai 13	**Whakarea/Whakawehe** Kaupae 6 Whanaketanga 3e 2.4 x 5	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"E 2.4 manokaramu (kg) te taumaha o tētahi pukapuka kotahi. E hia manokaramu (kg) te taumaha o ētahi o ēnei pukapuka e rima?"**	Mēnā ka whakamahia he rautaki wāwāhi tau me ngā meka whakarea: • Kei te Kaupae 6 o te Mahere Tau, mō te whakarea me te whakawehe, kei tua atu rānei. • Kei te Taumata 3e o Ngā Whanaketanga. Haere tonu ki te Pātai 14.	2 x 5 = **10**; 0.4 x 5 = **2.0**, nō reira 2.4 x 5 = **12** 2.4 x 10 = 24; $\frac{1}{2}$ o te 24 = 12
Patai 14	**Pānga Riterite** Kaupae 6 Whanaketanga 3e 4:32 = 12:☐	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"E 4 ngā pouaka hei kawe i ngā ipu wai 32. E hia ngā ipu wai katoa mēnā 12 ngā pouaka?"**	Mēnā ka whakamahia he rautaki pānga riterite: • Kei te Kaupae 6 o te Mahere Tau, mō te pānga riterite, kei tua atu rānei. • Kei te Taumata 3e o Ngā Whanaketanga. Haere tonu ki te Pātai 15.	32 ÷ 4 = 8 (e 8 ngā ipu ki te pouaka kotahi); 8 x 12 = 96, nō reira e 96 ngā ipu katoa 4 x 3 = 12 (e 3 te whakareatanga ake o ngā pouaka); 32 x 3 = 96 (e 3 hoki te whakareatanga ake o ngā ipu)
Patai 15	**Tāpiri/Tango** Kaupae 7 Whanaketanga 4a 2.4 + 6.32	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"Ka whakaranua te 2.4 rita wai ārani me te 6.32 rita wai māori. E hia rita te rōrahi o te katoa o te wai?"**	Mēnā ka whakamahia he rautaki wāwāhi tau: • 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. Haere tonu ki te Pātai 16.	(2 + 6) + (0.4 + 0.3) + 0.02 = 8.72 2.4 + 6 = 8.4; 8.4 + 0.3 = 8.7; 8.7 + 0.02 = 8.72
Patai 16	**Whakarea/Whakawehe** Kaupae 7 Whanaketanga 4a 54 ÷ 4	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. **"E 54 ngā tamariki, ka wehea ki ētahi kapa e 4. Tokohia ngā tamariki ki ia kapa?"**	Mēnā ka whakamahia he rautaki wāwāhi tau me ngā meka whakarea: • Kei te Kaupae 7 (tōmua) o te Mahere Tau, mō te whakarea me te whakawehe, kei tua atu rānei. • Kei te Taumata 4a o Ngā Whanaketanga. Haere tonu ki te Pātai 17.	40 ÷ 4 = **10**; 12 ÷ 4 = **3**, no reira 52 ÷ 4 = **13**. 13 ngā tamariki ki ia kapa, e 2 e toe ana. 54 ÷ 4 = 27 ÷ 2 = 13$\frac{1}{2}$, nō reira 13 ngā tamariki ki ētahi kapa e rua, 14 ngā tamariki ki ētahi kapa e rua 4 x **10** = 40; 4 x **3** = 12, nō reira 4 x **13** = 52, tokorua ngā tamariki e toe ana

Patai 17	**Pānga Riterite** Kaupae 7 Whanaketanga 4a 60% o te 30	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. "E 30 ngā maka pātea a Tāwhiri. Ū tonu te 60 ōrau (60%) o ana maka pātea. E hia ana maka pātea i ū?"	Mēnā ka whakamahia he rautaki pānga riterite: • 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.	10% o te 30 = 3, nō reira 60% o te 30 = 3 x 6 = 18 50% o te 30 = 15; 10% o te 30 = 3; 15 + 3 = 18 60% = $\frac{3}{5}$; $\frac{1}{5}$ o te 30 = 6, nō reira $\frac{3}{5}$ o te 30 = 6 x 3 = 18
Patai 18	**Tāpiri/Tango** Kaupae 7/8 Whanaketanga 4e 36 – 213	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. "E \$36 kei roto i te pūtea pēke a Māia. Ka tangohia e ia te \$213. E hia te tapeke o tana pūtea ināianei?"	Mēnā ka whakamahia he rautaki wāwāhi tau: • 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.	36 – **136** = –100; –100 – **4** = –104; –104 – **60** = –164; –164 – **10** = –174; –174 – **3** = –177, hui katoa, 36 – **213** = –177 213 – 36 = 213 – 13 – 20 – 3 = 200 – 20 – 3 = 180 – 3 = 177, nō reira \$177 tōraro kei tana pūtea 36 – 213 = 23 – 200 = –177 36 – 36 = 0; 213 – 36 → 213 – 33 = 180; 180 – 3 = 177; 0 – 177 = –177
Patai 19	**Whakarea/Whakawehe** Kaupae 7/8 Whanaketanga 4e 0.27 x 8	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. "E 8 ngā kapu wai ārani, 0.27 rita (0.27l) te rōrahi o ia kapu. E hia rita te rōrahi wai ārani kei ngā kapu e 8 katoa?"	Mēnā ka whakamahia he rautaki wāwāhi tau me ngā meka whakarea: • Kei te Kaupae 7 o te Mahere Tau, mō te whakarea me te whakawehe, kei tua atu rānei. • Kei te Taumata 4e o Ngā Whanaketanga. Haere tonu ki te Pātai 20.	0.27 x 2 = 0.54; 0.54 x 2 = 1.08; 1.08 x 2 = 2.16 rita 0.27 x 8 = (0.2 x 8) + (0.07 x 8) = 1.6 + 0.56 = 2.16 rita 0.27 x 8 = (0.3 x 8) – (0.03 x 8) = 2.4 – 0.24 = 2.16 rita 0.27 x 8 = (0.25 x 8) + (0.02 x 8) = 2.0 + 0.16 = 2.16 rita
Patai 20	**Pānga Riterite** Kaupae 7/8 Whanaketanga 4e 18:10 = ☐ :6	Whakaaturia te rapanga mō tēnei pātai, ka pānui ai. "\$18 te utu mō te 10 manokaramu (10kg) āporo. E hia te utu mō te 6 manokaramu (6kg)?"	Mēnā ka whakamahia he rautaki pānga riterite: • Kei te Kaupae 7 o te Mahere Tau, mō te pānga riterite, kei tua atu rānei. • Kei te Taumata 4e o Ngā Whanaketanga.	18 ÷ 10 = 1.8, nō reira \$1.80 mō te 1kg; 1.8 x 6 = 10.8, nō reira \$10.80 te utu mō te 6kg \$9 mō te 5kg, \$1.80 mō te 1kg, nō reira \$10.80 mō te 6kg