Ngā Whāinga Paetae: **Te Tau, Taumata 3**

Mahere Tau	0	1	2	3	4	5	6	7	8

3.1 (Mātauranga Tau)

Ka mōhio ki ngā tauoti 0–1,000,000: te whakaingoa i ngā tohutau; ngā momo raupapa tatauranga tauoti; ngā meka matua mō te tāpiri, te tango me te whakarea; te whakaawhiwhi tauoti, tau ā-ira hoki ki te 1, te 10, te 100 rānei e pātata ana; ngā tikanga uara tū o ngā tauoti me ngā tau ā-ira (kia 3 ngā mati ā-ira); te maha o ngā haurau, ngā hautekau, ngā tahi, ngā tekau, ngā rau me ngā mano kei roto i tētahi tau; te rahi me te hanga o tētahi tau.

Ngā Whāinga Paetae: **Te Tau, Taumata 4**

4.5 (Rautaki Tau)

Ka kōwhiri, ka whakamārama i te rautaki e tino whaihua ana hei whakaoti rapanga e whai wāhi mai ana te tauoti, te hautau, te tau ā-ira, te ōrau, te ōwehenga, te tau tōpū me te taupū māmā: rautaki tatau; rautaki tāpiripiri; rautaki whakarea; rautaki pānga riterite māmā.

4.6 (Rautaki Tau)

Ka mārama ki te whaitakenga o te otinga o tētahi rapanga.

Te Mātauranga	Ngā Rauemi e Hāngai ana
Ka mōhio ki ngā rōpū o te tekau, o te rau, o te mano kei roto i ngā tau matiwhitu.	*TPT, Pukapuka 4:* • Tātaitai (wh.15) • Huria te Tau (wh.87) • Whakawhitia ngā Paparanga Uara Tū (wh.88)
Ka raupapahia ngā tau ā-ira (kia 3 ngā mati ā-ira).	*TPT, Pukapuka 4:* • Raupapahia ngā Kāri (wh.10) • Kāri Pere (wh.11) • Raupapahia (wh.17) • He Aha te Tau? (wh.19) • He Aho Pirepire (wh.23) • Te Tau Nui Rawa Atu (wh.25) • Te Hautanga ā-Ira (wh.63)
Ka whakaputa wawe i ngā meka whakarea, tae atu ki te 10 × 10, me ngā meka whakawehe e whai pānga ana.	*TPT, Pukapuka 4:* • Ararā! (wh.9) • Raupapatanga Meka Matua (wh.111) • Whiriwhiria te Paheko (wh.112) • Whakareatia (wh.113) • He Ara Paheko Tau (wh.114) • Te Whakarea hei Whakaoti Whakawehenga (wh.116) • Whārite Whakareatanga (wh.118) *He Tau Anō Te Tau: Ngā Meka Matua, Taumata 2-3:* • Mirimiri Mataono (wh.2) • He Panga Tāpiapia (wh.20) • Kāri Whakarori (wh.23) *He Tau Anō Te Tau: Ngā Meka Matua, Taumata 3:* • He Panga Tauwehe (wh.11) • Te Whetū Taparau (wh.12) • He Takirua Rite (wh.15) • He Whakaata Rau (wh.21)

	He Tau Anō Te Tau: Ngā Meka Matua, Taumata 3-4: • Te Tukutuku Taurea (wh.10) *He Tau Anō Te Tau: Ngā Tau, Taumata 2-3:* • Waka Rererangi Rerekē (wh.14) • Ngeru Nanakia (wh.15) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuarua, Taumata 3:* • He Pāngarau te Pikitia (wh.6) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuatoru, Taumata 3:* • Ngā Iwa Māmā (wh.14)
Ka mōhio ki te maha o ngā rōpū (o ngā tau tae atu ki te 10) kei roto i tētahi tauoti (tae atu ki te 100), me ngā toenga ka hua mai. Hei tauira: E 6 ngā rōpū o te ono kei roto i te 38, me te 2 e toe mai ana.	
Ka whakaotia te hātepe ōkawa poto mō te whakarea me te whakawehe (tau matitoru ki te tau matitahi).	*He Tau Anō Te Tau: Te Tau, Pukapuka Tuarua, Taumata 3-4:* • He Iwi Kē, he Tikanga Kē (wh.4)

Ngā Rautaki	Te Panuku o ngā Rapanga	Ngā Rauemi e Hāngai ana
Ka whakamahia te rautaki 'wāwāhi uara tū' hei whakaoti rapanga whakarea (arā, te āhuatanga tātai tohatoha o te whakarea).	$44 \times 3 = \square \rightarrow 40 \times 3 + 4 \times 3$ $27 \times 7 = \square \rightarrow 20 \times 7 + 7 \times 7$ $53 \times 9 = \square \rightarrow 50 \times 9 + 3 \times 9$ $36 \times 8 = \square \rightarrow 30 \times 8 + 6 \times 8$ $217 \times 4 = \square \rightarrow 200 \times 4 + 10 \times 4 + 7 \times 4$	*TPT, Pukapuka 6:* • Ngā kōrero whakataki mō te Kaupae 6-7 (wh.71) • Rautaki Whakarea Whānui (wh.84) *He Tau Anō Te Tau: Te Tau, Taumata 3:* • Ngā Tini Tari (wh.22) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuarua, Taumata 3:* • He Tātaitanga Kapa Haka (wh.7) • Kei Ngaro! (wh.8) • Pērā Rawa te Pakeke? (wh.12) • Tiakareti Tuawhiti (wh.15) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuatoru, Taumata 3:* • Pīataata Ana! (wh.12) *He Tau Anō Te Tau: Te Tau, Taumata 3-4:* • He Rerekē te Āhua, he Rite te Otinga (wh.17) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuatoru, Taumata 3-4:* • Kia Tika te Tapatapahi i te Tōtiti (wh.14) *He Tau Anō Te Tau: Ngā Meka Matua, Taumata 3-4:* • He Whātoro Whakarea (wh.2)

Ka whakaoti rapanga tāpiri, rapanga tango hoki, e whai wāhi mai ana te tau tōpū (arā, he tau tōraro, he tau tōrunga).	$^+2 + {}^+3 = \square$ $^-4 + {}^-1 = \square$ $^+4 + {}^-5 = \square$ $^-2 + {}^-8 = \square$ $^+6 - {}^+5 = \square$ $^-7 - {}^-3 = \square$ $^+5 - {}^-2 = \square$ $^-3 - {}^+7 = \square$	*TPT, Pukapuka 5:* • Utua mai, Utua atu (wh.172) • He Puke, he Hāpua (wh.174) *TPT, Pukapuka 8:* • Te Tau Tōraro me te Tangohanga (wh.86) *He Tau Anō Te Tau: Te Tau, Taumata 3-4:* • Kei Riro i te Korokoro o te Mako (wh.23) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuatoru, Taumata 3-4:* • Ngā Ahi Tipua o Aotearoa (wh.20) • Ka Teitei Ake, ka Makariri Ake (wh.22)
Ka whakamahia te rautaki 'te tau māmā me te tikanga paremata' hei whakaoti rapanga whakarea (arā, te āhuatanga tātai tohatoha o te whakarea).	$26 \times 4 = \square \rightarrow 25 \times 4 + 1 \times 4$ $99 \times 6 = \square \rightarrow 100 \times 6 - 1 \times 6$ $48 \times 7 = \square \rightarrow 50 \times 7 - 2 \times 7$ $47 \times 8 = \square \rightarrow 50 \times 8 - 3 \times 8$ $248 \times 6 = \square \rightarrow 250 \times 6 - 2 \times 6$	*TPT Pukapuka 6:* • Rautaki Whakarea Whānui (wh.84) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuarua, Taumata 3:* • He Tikanga Maha (wh.10) *He Tau Anō Te Tau: Te Tau, Taumata 3-4:* • Me Penapena ka Tika (wh.15) • He Rautaki Whakarea (wh.16)
Ka whakamahia te rautaki 'pānga riterite' pērā i te rearua me te haurua, te reatoru me te hautoru, hei whakaoti rapanga whakarea.	$6 \times 4 = \square$, nō reira, $\square \times 2 = 24$ $\square \times 3 = 24$ $10 \times 12 = \square$, nō reira, $5 \times \square = 120$ $\square \times 6 = 120$ $8 \times 9 = \square$, nō reira, $\square \times 3 = 72$ $4 \times \square = 72$ $4 \times 16 = \square \rightarrow 8 \times 8 = \square$ $5 \times 468 = \square \rightarrow 10 \times 234 = \square$ $33 \times 18 = \square \rightarrow 99 \times 6 = \square$	*TPT, Pukapuka 6:* • Tapahia, ka Whakapiri ai (wh.79) *TPT, Pukapuka 8:* • Te Rearua me te Haurua (wh.40) • Whakareatia ki te 25 (wh.42)
Ka whakamahia te rautaki 'wāwāhi uara tū' hei whakaoti rapanga whakawehe, me te mōhio anō ki te tuhinga ōkawa. Hei tauira: $\begin{array}{r} 44 \\ 8\overline{)352} \\ \underline{320} \;\; 40 \\ 32 \\ \underline{32} \;\; 4 \end{array}$	$96 \div 4 = \square \rightarrow 80 \div 4 = 20$ me te $16 \div 4 = 4$ $135 \div 5 = \square \rightarrow 100 \div 5 = 20$ me te $35 \div 5 = 7$ $189 \div 3 = \square \rightarrow 180 \div 3 = 60$ me te $9 \div 3 = 3$ $414 \div 9 = \square \rightarrow 360 \div 9 = 40$ me te $54 \div 9 = 6$ $296 \div 8 = \square \rightarrow 240 \div 8 = 30$ me te $56 \div 8 = 7$ $318 \div 6 = \square \rightarrow 300 \div 6 = 50$ me te $18 \div 6 = 3$	*TPT, Pukapuka 6:* • Te Hātepe Ōkawa (wh.100) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuatoru, Taumata 3:* • Piua Mai ō Kapa ki te Pōtae! (wh.11) • He Tuha Uka, he Kai Uka (wh.18)

Ka whakamahia te rautaki 'te tau māmā me te tikanga paremata' hei whakaoti rapanga whakawehe.	$100 \div 4 = 25$, nō reira, $96 \div 4 = \square$ $180 \div 3 = 60$, nō reira, $162 \div 3 = \square$ $490 \div 7 = 70$, nō reira, $476 \div 7 = \square$ $640 \div 8 = 80$, nō reira, $616 \div 8 = \square$ $810 \div 9 = 90$, nō reira, $792 \div 9 = \square$	*TPT, Pukapuka 6:* • Te Hātepe Ōkawa (wh.100) *He Tau Anō Te Tau: Te Tau, Taumata 3-4:* • Wehe ana i te Rekareka! (wh.18)
Ka whakamahia te rautaki 'wāwāhia he tauwehe' hei whakaoti rapanga whakarea, rapanga whakawehe hoki.	$4 \times 44 = \square \rightarrow 2 \times 2 \times 44$ $8 \times 57 = \square \rightarrow 2 \times 2 \times 2 \times 57$ $12 \times 23 = \square \rightarrow 2 \times 2 \times 3 \times 23$ $72 \div 4 = \square \rightarrow 72 \div 2 \div 2 = \square$ $184 \div 8 = \square \rightarrow 184 \div 2 \div 2 \div 2 = \square$ $396 \div 6 = \square \rightarrow 396 \div 3 \div 2 = \square$	*TPT, Pukapuka 6:* • Mā te Tauwehe (wh.118)
Ka whakamahia te rautaki 'pānga riterite' hei whakaoti rapanga whakawehe. Hei tauira, ko te haurua me te rearua, ko te hautoru me te reatoru.	$52 \div 4 = \square \rightarrow 26 \div 2 = \square$ $208 \div 8 = \square \rightarrow 104 \div 4 = \square$, $52 \div 2 = \square$ $408 \div 12 = \square \rightarrow 204 \div 6 = \square$, $102 \div 3 = \square$ $378 \div 27 = \square \rightarrow 42 \div 3 = \square$	*TPT, Pukapuka 6:* • Hākari (wh.92) *TPT, Pukapuka 8:* • Te Tikanga o te Tohu Ōrite (wh.33)
Ka whakamahia te rautaki 'pānga riterite' hei whakaoti rapanga whakawehe.	$24 \div 4 = 6$, nō reira, $24 \div 8 = \square$, $24 \div 2 = \square$ $40 \div 10 = 4$, nō reira, $40 \div 5 = \square$, $40 \div 20 = \square$ $72 \div 9 = 8$, nō reira, $72 \div 3 = \square$, $72 \div 18 = \square$ $56 \div 8 = 7$, nō reira, $56 \div 16 = \square$, $56 \div 4 = \square$ $1,000 \div 2 = 500$, nō reira, $1,000 \div 4 = \square$, $1,000 \div 8 = \square$	*TPT, Pukapuka 6:* • Te Pānga Riterite hei Whakaoti Whakawehenga (wh.88)
Ka whakamahia te rautaki 'te wāwāhi uara tū' hei whakaoti rapanga whakarea, whakawehe hoki, me te mōhio hoki ki te hātepe ōkawa mō te whakarea.	$10 \times 20 = 200$, nō reira, $14 \times 23 = \square$ $20 \times 40 = 800$, nō reira, $23 \times 47 = \square$ $50 \times 40 = 2,000$, nō reira, $53 \times 46 = \square$ $900 \div 30 = 30$, nō reira, $1,080 \div 30 = \square$ $4,000 \div 80 = 50$, nō reira, $3,840 \div 80 = \square$ $10,000 \div 100 = 100$, nō reira, $10,000 \div 25 = \square$	*TPT, Pukapuka 6:* • Whakareatanga Whakawhiti (wh.105) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuatoru, Taumata 3-4:* • He Tauira Tau (wh.8) • E Hia? (wh.12)

Ka whakaoti rapanga whakawehe e whai toenga ana, ā, ka whakaaturia te toenga hei tauoti, hei hautau, hei tau ā-ira rānei, i runga anō i te horopaki. Hei tauira: • 38 ÷ 4 = 9 t2 • 38 ÷ 4 = 9.5 • 38 ÷ 4 = $9\frac{1}{2}$	34 ÷ 2 = 17, nō reira, 35 ÷ 2 = ☐ 75 ÷ 5 = 15, nō reira, 78 ÷ 5 = ☐ 64 ÷ 4 = 16, nō reira, 67 ÷ 4 = ☐ 51 ÷ 3 = 17, nō reira, 53 ÷ 3 = ☐ 200 ÷ 8 = 25, nō reira, 205 ÷ 8 = ☐ 480 ÷ 24 = 20, nō reira, 486 ÷ 24 = ☐	*TPT, Pukapuka 6:* • He Toenga (wh.96) *He Tau Anō Te Tau: Ngā Meka Matua, Taumata 3:* • He Taonga Tonu te Toenga (wh.22)
Ka whakamahia ngā ture whakawehe mō te 2, te 3, te 4, te 5, te 6, te 8 me te 9.	He taurea ēnei o te 4 me te 8? 132, 248, 481, 925, 2,412, 6,664 He taurea ēnei o te 3 me te 9? 72, 144, 267, 496, 1,002 He taurea ēnei o te 6? 108, 243, 522, 963	*TPT, Pukapuka 6:* • Whakawehea ki te Iwa, ki te Toru rānei (wh.108) *TPT, Pukapuka 8:* • Te Whakamātau Whakawehenga (wh.93) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuatoru, Taumata 3:* • Ngā Iwa Māmā (wh.14) *He Tau Anō Te Tau: Ngā Meka Matua, Taumata 3:* • Kei te Mataono te Kōrero (wh.20)
Ka mōhio ki te whakarea, ki te whakawehe hoki i tētahi tau ki te 10, ki te 100, ki te 1,000, ki tētahi atu taupū rānei o te 10.		*TPT, Pukapuka 6:* • He Māmā te Pūnaha Tekau (wh.74)
Ka whakaoti rapanga e whai wāhi mai ana te raupapatanga o ngā paheko e whā.		*He Tau Anō Te Tau: Ngā Meka Matua, Taumata 3:* • Te Hanga Tau (wh.24) *He Tau Anō Te Tau: Te Tau, Taumata 3:* • He Pātene Pakaru (wh.19) • Te Papa Patopato (wh.21) • He Koeko Tapawhā (wh.23) *He Tau Anō Te Tau: Te Tau, Taumata 3-4:* • He Rapanga o Ia Rā (wh.20) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuarua, Taumata 3-4:* • He Iwi Kē, he Tikanga Kē (wh.4) • Kia Mākona te Katoa (wh.5) *He Tau Anō Te Tau: Te Tau, Pukapuka Tuatoru, Taumata 3-4:* • He Tauira Tau (wh.8)