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Te Whakarea RAUTAKI PĀNGA RITERITE

E ako ana ahau i ngā rautaki ‘pānga riterite’ hei whakamāmā rapanga whakarea.

Hei Mahi 1

Ngā tohutohu:

Whakamahia te rautaki ‘rearua me te haurua’ hei whakamāmā i ngā whakareatanga nei, ka whakaoti ai.

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|---------------------------------------|--|--|
| 1) 4×18 | (2) 5×16 | (3) 3×16 |
| 4) 3×24 | (5) 4×32 | (6) 5×48 |
| 7) 55×4 | (8) 28×5 | (9) 68×5 |
| 10) 20×34 | (11) 36×5 | (12) 26×4 |
| 13) 14×8 | (14) 18×40 | (15) 40×25 |
| 16) 16×25 | (17) 360×50 | (18) 24×50 |
| 19) 50×14 | (20) 25×16 | (21) 68×50 |
| 22) 28×500 | (23) 34×500 | (24) 286×5000 |

Hei Mahi 2

Ngā tohutohu:

E tino hāngai ana te rautaki ‘rearua me te haurua’ hei whakamāmā i ētahi o ngā whakareatanga nei, kāore e hāngai ana mō ētahi. Ko ēhea ngā whakareatanga e hāngai ana tēnei rautaki?

- | | | |
|--|--------------------------------------|-------------------------------------|
| 1) 2×24 | (2) 8×54 | (3) 7×21 |
| 4) 4×24 | (5) 5×64 | (6) 6×27 |
| 7) 8×25 | (8) 5×125 | (9) 9×42 |
| 10) Whakamāramatia he aha e hāngai ai te rautaki ‘rearua me te haurua’ hei whakamāmā i tētahi whakareatanga. | | |

Hei Mahi 3

Ngā tohutohu:

Whakamahia te rautaki ‘rearua me te haurua’, te ‘reatoru me te hautoru’, tētahi atu rautaki rānei e pēnei ana, hei whakamāmā i ngā whakareatanga nei, ka whakaoti ai.

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|-----|--|-----|----------------|-----|----------------|
| 1) | 3×27 | (2) | 40×15 | (3) | 36×3 |
| 4) | 4×16 | (5) | 25×32 | (6) | 9×33 |
| 7) | 250×48 | (8) | 20×98 | (9) | 12×33 |
| 10) | Ko ēhea ngā whakareatanga i Hei Mahi 1, he māmā ake te whakaoti mā te whakamahi i tētahi rautaki pēnei i te ‘reatoru me te hautoru’? | | | | |
| 11) | Mā te whakamahi rautaki pēnei i te ‘rearua me te haurua’, te ‘reatoru me te hautoru’ tētahi atu rautaki rānei e pēnei ana, tuhia ētahi atu whakareatanga e hāngai ana ki te $45 \times 18 = 810$. | | | | |

Hei Mahi 4

Ngā tohutohu:

Whakamahia te rautaki ‘rearua me te haurua’, te ‘reatoru me te hautoru’, tētahi atu rautaki rānei e pēnei ana, ka tuhi ai i te tau e tika ana mō roto i te pouaka.

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|----|------------------------------------|-----|------------------------------------|-----|------------------------------------|
| 1) | $15 \times 8 = 30 \times \square$ | (2) | $24 \times 12 = 48 \times \square$ | (3) | $36 \times 5 = \square \times 10$ |
| 4) | $45 \times \square = 90 \times 9$ | (5) | $48 \times \square = 12 \times 12$ | (6) | $\square \times 16 = 8 \times 8$ |
| 7) | $23 \times \square = 46 \times 10$ | (8) | $65 \times 12 = \square \times 6$ | (9) | $35 \times 14 = 70 \times \square$ |

Ko te rautaki ‘rearua me te haurua’ e hāngai ana ki ngā whakareatanga e whai ake nei. Whiriwhiria ngā tau e tika ana mō roto i te pouaka me te porowhita.

10) $16 \times \square = \circ \times 10$ (11) $\square \times 7 = 100 \times \circ$ (12) $25 \times \square = \circ \times 50$

Hei Mahi 5

Ngā touhtohu:

Whakamahia te rautaki ‘rearua me te haurua’, te ‘reatoru me te hautoru’, tētahi atu rautaki rānei e pēnei ana, hei whakamāmā i ēnei whakareatanga, ka whakaoti ai.

- | | | | | | |
|----|------------------|-----|------------------|-----|------------------|
| 1) | 0.5×16 | (2) | 0.1×160 | (3) | 0.25×16 |
| 4) | 0.3×150 | (5) | 1.8×4 | (6) | 0.5×38 |

- | | | | | | |
|-----|---|------|-------------------------------------|------|-------------------------------------|
| 7) | 4×1.6 | (8) | 6×3.5 | (9) | 3×2.4 |
| 10) | 5×15.6 | (11) | 0.4×0.16 | (12) | 0.8×7.5 |
| 13) | 3.2×20 | (14) | 30×0.29 | (15) | 200×0.32 |
| 16) | Whakamāramatia he aha e whaihua ai te rautaki ‘rearua me te haurua’ hei whakaoti i ngā whakareatanga tau ā-ira. | | | | |

Hei Mahi 6

Ngā touhtohu:

Tuhia te whārite e hāngai ana ki te rapanga. Whakamahia te rautaki ‘rearua me te haurua’, te ‘reatoru me te hautoru’, tētahi atu rautaki rānei e pēnei ana, hei whakamāmā i ngā whārite, ka whakaoti ai.

- 1) E \$5 te utu mō tētahi haerenga mā ia ākonga. Mēnā 18 ngā ākonga, e hia katoa te moni ka utua e rātou?
- 2) E 6 ngā tūranga pukapuka, e 24 ngā pukapuka ki ia tūranga. E hia katoa ngā pukapuka?
- 3) E 20 ngā haenga parāoa o ia rohi. Mēnā 120 ngā rohi, e hia katoa ngā haenga?
- 4) E 24 ngā iari poaka a Kaipāmu Horomona. Mēnā e 3 ngā poaka ki ia iari, e hia katoa ngā poaka?
- 5) 18 ngā kaupae i te ara piki mai i tētahi papa ki tētahi o te whare tororangi. Ka piki ake a Hiria mai i te papa whenua ki te papa 15. E hia katoa ngā kaupae i hīkoia e ia?
- 6) E 25 mita te roa o te hōpua kauhoe. Ka oti i a Neitana ngā roanga e 6. Pēhea nei te tawhiti o tana kauhoe?
- 7) 15 ngā tēpu i te whare kai, tokoono ngā tāngata ka taea ki ia tēpu. E hia katoa ngā nōhangā?
- 8) E 5 ngā pouaka tiakareti, 15 ngā tiakareti kei ia pouaka. E hia katoa ngā tiakareti?
- 9) Ka pau i a Paora te 2244 mL miraka te inu i ia rangi. E hia te rōrahi miraka ka pau i a ia i ngā rangi e 5?
- 10) E 22 ngā pihikete kei te pākete kotahi. E hia katoa ngā pihikete i ngā pākete 15?

Hei Mahi 7

Ngā tohutohu:

Āta whakaarohia ngā kōrero nei, ka whakawhitihitī kōrero ai me tō rōpū mahi me tō kaiako.

- 1) Ko te hei tohu i tētahi tau. He aha ētahi kīanga pāngarau hei whakaatu i te rearua o taua tau?
- 2) Ko te hei tohu i tētahi tau. He aha ētahi kīanga pāngarau hei whakaatu i te haurua o taua tau?
- 3) Ko te hei tohu i tētahi tau. He aha ētahi kīanga pāngarau hei whakaatu i te rearua o taua tau?
- 4) Ko te hei tohu i tētahi tau. He aha ētahi kīanga pāngarau hei whakaatu i te haurua o taua tau?

Hei Mahi 8

E whakamahia ana te rautaki ‘rearua me te haurua’ hei whakarea i te x me te y . Ka rearuatia te x , ka hauruatia te y .

- 1) Tuhia he kīanga pāngarau hei whakaatu i tēnei rautaki.
- 2) Whakamāramatia mai, he aha e ūrite ai te otinga o te whakareatanga o te x me te y , me te whakareatanga o te rearua o te x me te haurua o te y .

Hei Mahi 9

Whakamahia te rautaki ‘rearua me te haurua’, te ‘reatoru me te hautoru’, tētahi atu rautaki rānei e pēnei ana, hei whiriwhiri i ngā tauwehe katoa o ngā tau e whai ake nei.

1)	16	(2)	20	(3)	40
4)	24	(5)	30	(6)	36
7)	44	(8)	56	(9)	60
10)	52	(11)	64	(12)	84
13)	27	(14)	51	(15)	45
16)	130	(17)	124	(18)	123
19)	300	(20)	215	(21)	141

**Te Whakarea
RAUTAKI PĀNGA RITERITE
NGĀ OTINGA**

Hei Mahi 1

1)	$8 \times 9 = 72$	(2)	$10 \times 8 = 80$	(3)	$6 \times 8 = 48$	(4)	$6 \times 12 = 72$
5)	$2 \times 64 = 128$	(6)	$10 \times 24 = 240$	(7)	$2 \times 110 = 220$	(8)	$14 \times 10 = 140$
9)	$10 \times 34 = 340$	(10)	$10 \times 68 = 680$	(11)	$18 \times 10 = 180$	(12)	$52 \times 2 = 104$
13)	$56 \times 2 = 112$	(14)	$36 \times 20 = 720$	(15)	$10 \times 100 = 1000$	(16)	$4 \times 100 = 400$
17)	$180 \times 100 = 18000$	(18)	$12 \times 100 = 1200$	(19)	$100 \times 7 = 700$	(20)	$100 \times 4 = 400$
21)	$34 \times 100 = 3400$	(22)	$14 \times 1000 = 14000$	(23)	$17 \times 1000 = 17000$	(24)	$143 \times 10000 = 1430000$

Hei Mahi 2

1)	$\checkmark 4 \times 12$	(2)	\times	(3)	\times	(4)	$\checkmark 8 \times 12$
5)	$\checkmark 10 \times 32$	(6)	\times	(7)	$\checkmark 4 \times 50$	(8)	\times
9)	\times						

10) Me whakawhitihiti kōrero me tō kaiako.

Hei Mahi 3

1)	$9 \times 9 = 81$	(2)	$20 \times 30 = 600$	(3)	$12 \times 9 = 108$	(4)	$8 \times 8 = 64$
5)	$100 \times 8 = 800$	(6)	$3 \times 99 = 297$	(7)	$1000 \times 12 = 12000$	(8)	$10 \times 196 = 1960$
9)	$4 \times 99 = 396$						
10)	Me whakawhitihiti kōrero me tō kaiako.						
11)	Me whakawhitihiti kōrero me tō kaiako.						

Hei Mahi 4

1)	$\square = 4$	(2)	$\square = 6$	(3)	$\square = 18$	(4)	$\square = 18$
5)	$\square = 3$	(6)	$\square = 4$	(7)	$\square = 20$	(8)	$\square = 130$
9)	$\square = 7$	(10)	$\square = 5$ $\bullet = 8$	(11)	$\square = 200$ $\bullet = 14$	(12)	$\square = 100$ $\bullet = 50$

Hei Mahi 5

1)	$1 \times 8 = 8$	(2)	$1 \times 16 = 16$	(3)	$1 \times 4 = 4$	(4)	$3 \times 15 = 45$
5)	$0.9 \times 8 = 7.2$	(6)	$1 \times 19 = 19$	(7)	$8 \times 0.8 = 6.4$	(8)	$3 \times 7 = 21$
9)	$9 \times 0.8 = 7.2$	(10)	$10 \times 7.8 = 78$	(11)	$0.8 \times 0.08 = 0.064$	(12)	$0.2 \times 30 = 6$
13)	$6.4 \times 10 = 64$	(14)	$10 \times 0.87 = 8.7$	(15)	$100 \times 0.64 = 64$		
(16)							

Hei Mahi 6

1)	$18 \times 5 \rightarrow 9 \times 10 = 90$	(2)	$6 \times 24 \rightarrow 12 \times 12 = 144$	(3)	$120 \times 20 \rightarrow 240 \times 10 = 2400$
4)	$3 \times 24 \rightarrow 9 \times 8 = 72$	(5)	$18 \times 15 \rightarrow 9 \times 30 = 270$	(6)	$6 \times 25 \rightarrow 3 \times 50 = 150$
7)	$15 \times 6 \rightarrow 30 \times 3 = 90$	(8)	$5 \times 14 \rightarrow 10 \times 7 = 70$	(9)	$2244 \times 5 \rightarrow 1122 \times 10 = 11220 \text{ml}$
10)	$15 \times 22 \rightarrow 30 \times 11 = 330$				

Hei Mahi 7

1)	$2\Box$	(2)	$\Box/2$ or $\frac{1}{2}\Box$	(3)	$2x$
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4) $\frac{x}{2}$, $\frac{1}{2}x$, $x \div 2$ rānei

Hei Mahi 8

1) $2x \times \frac{y}{2}$, $2x \times \frac{1}{2}y$ rānei

(2) $2x \times \frac{1}{2}y = 2 \times \frac{1}{2} \times x \times y = x \times y$

Hei Mahi 9

1) 16,8,4,2,1

(2) 20,10,5 & 4,1

(3) 40,20,10,5 & 8,4,2,1

4) 24,12,6,3 & 8,4,2,1

(5) 30,15 & 10,5,3,1

(6) 36,18,9 & 12,4 & 6,1

7) 44,22,11 & 4,2,1

(8) 56,28,14,7 & 8,4,2,1

(9) 60,30,20,15,12,10,6,5,4,3,2,1

10) 52,26,13,4,2,1

(11) 64,32,16,8,4,2,1,

(12) 84,42,21,28,14,12,7,6,3,4,2,1

(13) 27,9,3,1

(14) 51,17,3,1

(15) 45,15,5,9,3,1

16) 130,65,26,5,2,1

(17) 124,62,31,4,2,1

(18) 123,41,3,1

19) 1×300 , 2×150 , 4×75 , 12×25 , 60×5 , 30×10 , 15×20 , 3×100

20) 5×43

(21) 3×47