

### 1.1 Adding Whole Numbers

#### The First Hawaikian Who Reached Aotearoa

The first known explorer from Hawaiki<sup>1</sup> who reached Aotearoa<sup>2</sup>, was the legendary Kupe. With his great ocean-going *waka hourua*<sup>3</sup>, he crossed *Moana-nui-a-Kiwa*<sup>4</sup> and discovered the two main islands of Aotearoa, *Te Ika a Maui*<sup>5</sup> and *Te Wai Pounaumu*<sup>6</sup>.

To find out the name of Kupe’s *waka hourua*, use the appropriate number strategy and work out the problems below. The letter beside each question and its answer will give the puzzle code.

$16 + 24 + 47$	$43 + 27 + 72$	$148 + 58 + 42$	$269 + 125 + 431$
T	X	R	E
$124 + 43 + 376$		$26 + 37$	L
$219 + 45 + 281$		$18 + 47$	O
$345 + 121 + 255$		$43 + 46$	T
$67 + 45$		$36 + 48$	S
$78 + 47$		$37 + 44$	T
$252 + 88$		$68 + 17$	G
$196 + 248$		$197 + 243$	$104 + 239$
L	Z	N	T

721	65	3	81	125	3	343	543	142	87	3	444	825	545	450	825	248

63	440	84	112	85	343	340	89	112

<sup>1</sup>Hawaiki - the ancient homeland of Māori; <sup>2</sup>Aotearoa – New Zealand; <sup>3</sup>Waka hourua - double-hulled canoe; <sup>4</sup>Moana-nui-a-Kiwa – the Pacific Ocean; <sup>5</sup>Te Ika a Maui – the North Island; <sup>6</sup>Te Wai Pounaumu - the South Island;

## 1.2 Subtracting Whole Numbers

### The First Māori Woman Who Spotted Aotearoa

The first known explorer from Hawaiki<sup>1</sup> who reached Aotearoa<sup>2</sup>, was the legendary Kupe. He took his *whānau*<sup>3</sup> with him on his voyage. After Kupe and his *whānau* sailed for many days, they were desperate to see any sign of land. Some people say that Kupe’s *wahine*<sup>4</sup> was the first to see land.

To find out the name of Kupe’s *wahine* who first spotted Aotearoa, work out the problems below. The letter beside each question and its answer will give the puzzle code.



87 – 29 A			56 – 27 R			103 – 68 P			95 – 58 G		
89 – 63 I			100 – 76 H			92 – 48 T					
1000 – 754 E			64 – 18 M			1000 – 259 R			128 – 89 N		
1000 – 657 A			142 – 85 H			10 000 – 7 658 S					
154 – 77 N			10 000 – 2 899 E			184 – 97 I			100 – 32 A		
100 – 67 N			100 – 38 W			10 000 – 4 271 A					
520 – 240 E			680 – 360 A			345 – 140 E					

24	280	29	30	33	343	46	246	30	62	58	2342

57	26	39	205	30	44	7101	30	320	35	68	741	5729	77	37	87

<sup>1</sup>Hawaiki - the ancient homeland of Māori; <sup>2</sup>Aotearoa – New Zealand; <sup>3</sup>Whānau - family, people; <sup>4</sup>Wahine (wife);

### 1.3 Multiplying Whole Numbers

#### Aotea’s First Tīheru (Bailing Scoop)

The first known explorer from Hawaiki<sup>1</sup> who reached Aotearoa<sup>2</sup>, was the legendary Kupe. While Kupe was away from Hawaiki, a quarrel arose between Kupe’s brother-in-law Turi and a *rangatira*<sup>3</sup>. Turi left Hawaiki and sailed to Aotearoa to avoid conflict with the *rangatira* he had argued with. His *waka*<sup>4</sup> Aotea had two great *hiwa*<sup>5</sup> and two *tīheru*<sup>6</sup>.  
 To discover the name of the first *tīheru*, calculate the expressions below. The letter beside each question and its answer will give the puzzle code.

$17 \times 9 =$	$70 \times 8 =$	$500 \times 14 =$	$5 \times 70 \times 6 =$
N	I	P	E
$7 \times 600 =$	$15 \times 204 =$	$4 \times 17 \times 25 =$	$8 \times 13 \times 25 =$
A	S	O	A
$20 \times 3 \times 5 =$	$8 \times 22 =$	$5 \times 40 \times 9 =$	$6 \times 18 =$
M	T	U	R
$35 \times 20 =$	$400 \times 12 =$	$40 \times 15 =$	$29 \times 5 =$
H	U	N	S
$2 \times 14 \times 5 =$	$16 \times 21 =$	$7 \times 1001 =$	$20 \times 11 \times 5 =$
O	K	W	U
$30 \times 12 =$		$4 \times 18 =$	$60 \times 9 =$
A		I	T

540	560	7000	4800	4200	3	700	1700	108	140	153	1100	336	1800

7007	2600	3060	5	72	176	145	7	600	360	300	2100

<sup>1</sup>Hawaiki - the ancient homeland of Māori; <sup>2</sup>Aotearoa – New Zealand; <sup>3</sup>Rangatira – chief; <sup>4</sup>Waka – canoe; <sup>5</sup>Hiwa - steering paddle; <sup>6</sup>Tīheru - bailing scoop;

### 1.4 Dividing Whole Numbers

#### Prayers for Avoiding Aituā (Bad Luck)

The first known explorer from Hawaiki<sup>1</sup> who reached Aotearoa<sup>2</sup>, was the legendary Kupe. While Kupe was away from Hawaiki, a quarrel arose between Kupe’s brother-in-law Turi and a *rangatira*<sup>3</sup>. Turi left Hawaiki and sailed to Aotearoa to avoid conflict with the *rangatira* he had argued with. After sailing for many days in very bad weather, Turi and his crew discovered that their *waka*<sup>4</sup> named Aotea was badly damaged. Finally, they landed safely on a small island and repaired the damaged *waka*. Then Turi removed all *aituā*<sup>5</sup> from the *waka* by saying *karakia*<sup>6</sup> over the damaged Aotea. What *karakia* did Turi say to avoid *aituā*?  
 To find out the answer, divide the numbers below. The letter beside each question and its answer will give the puzzle code.

$117 \div 9 =$	$98 \div 7 =$		
T	$150 \div 6 =$	E	$136 \div 17 =$
$104 \div 26 =$	A	$60 \div 12 =$	N
E	$264 \div 12 =$	K	$240 \div 20 =$
$120 \div 8 =$	N	$280 \div 14 =$	A
U	$112 \div 16 =$	G	$78 \div 13 =$
$136 \div 8 =$	A	$144 \div 8 =$	N
D	$165 \div 15 =$	K	$150 \div 15 =$
$192 \div 12 =$	G		A
A			


5	14	15	4	6	11	12	19	25	22	17	23	13	16	18	7	8	20	10

<sup>1</sup>Hawaiki - the ancient homeland of Māori; <sup>2</sup>Aotearoa – New Zealand; <sup>3</sup>Rangatira – chief; <sup>4</sup>Waka – canoe; <sup>5</sup>Aituā - bad luck; <sup>6</sup>karakia - a prayer;

### 1.5 Rounding and Estimation

#### The Name of the Te Arawa's Navigator

Some accounts say that Te Arawa was the largest *waka*<sup>1</sup> that came to Aotearoa<sup>2</sup> from Hawaiki<sup>3</sup>. It was a *waka hourua*<sup>4</sup> with a *whare*<sup>5</sup> built on it. To find out what was the name of Te Arawa's navigator, round each number in each example to one significant figure and then estimate the result. The letter beside each question and its answer will give the puzzle code.

N	$18 \times 28 =$	O	
$53 \times 69 =$			
I	$22 \times 49 =$	T	G
$41 \times 19 =$			$215 \div 18 =$
A	$595 \div 13 =$	R	N
$28 \times 32 =$			$38 \times 12 =$
			$217 \div 39 =$
I	$63 \times 22 =$	O	G
$297 \div 52 =$			$17 \times 11 =$
			$13 \times 29 =$
			A

5	300	200	1000	1200	60	600	3	6	7	400	900	3500	10	800

<sup>1</sup>Waka – canoe; <sup>2</sup>Hawaiki - the ancient homeland of Māori; <sup>3</sup>Aotearoa – New Zealand; <sup>4</sup>Waka hourua (double-hulled canoe); <sup>5</sup>Whare (house);