

**Ihumanea Pāngarau**  
**He Pātata ngā Kaute Whakamutunga**  
**MĀ TE KAIKO**



**Kia Mōhio te Ākonga ki:**

- te whakaaro arorau hei whakaoti rapanga
- te tāpiri tauoti
- te kapo māramatanga i tētahi tūtohi

**Kupu Matua:**

piro, kaute, kaute whakamutunga, whana piro, whana hāmene

**Whāinga Paetae:**

Taumata 3, Te Tau me te Taurangi

3. 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 māmā me te ōrau: rautaki tatau; rautaki whakarōpū; rautaki tohatoha ōrite; rautaki tāpiripiri; rautaki whakarea māmā.
4. Ka mārama ki te whaitakenga o te otinga o tētahi rapanga.

**Hei Mahi:**

He tino pātata tētahi kēmu whutupōro i waenganui i Ngā Ōpango o Aotearoa me Ngā Warapī o Ahitereiria i te tau 2014.

Āta titiro ki tēnei tūtohi, ka whakautu ai i ngā pātai:

	Ngā piro	Ngā whana piro	Ngā whana hāmene	Ngā whana taka
Ngā kaute mō te mea kotahi	5	2	3	3
Te maha i riro i a Ahitereiria	3	2	3	0
Te maha i riro i Ngā Ōpango	4	3	1	0

### 1. Ko tēhea kapa i toa i tēnei kēmu?

He pātai āwhina he tuku mā te kaiako (ina hiahia):

- Titiro ki te kapa tuarua o te tūtohi. He aha te tikanga o ngā tau kei te kapa tuarua nei?
- E hia ngā piro a Ahitereiria? Nō reira e hia ngā kaute ka riro i a rātou mō ngā piro e toru?

Hei tauira rautaki – ka tuhia ngā kaute a ia kapa ki te tūtohi:

	Ngā piro	Ngā whana piro	Ngā whana hāmene	Ngā whana taka	Kaute Whakamutunga
Ngā kaute mō te mea kotahi	5	2	3	3	
Te maha i riro i a Ahitereiria	3 kaute = 15	2 kaute = 4	3 kaute = 9	0 kaute = 0	15 + 4 + 9 = 28
Te maha i riro i Ngā Ōpango	4 kaute = 20	3 kaute = 6	1 kaute = 3	0 kaute = 0	20 + 6 + 3 = 29

Nō reira ko Aotearoa te kapa toa.

### 2. I mua i te tau 1992, e whā ngā kaute mō te piro kotahi. Mēnā ko te 1991 te tau tākaro o tēnei kēmu, ā, he pēnei anō te maha o ngā piro, ngā whana piro me ngā whana hāmene a ia kapa, ko wai te kapa toa?

He pātai āwhina he tuku mā te kaiako (ina hiahia):

- Titiro ki te kapa tuarua o te tūtohi. He aha te rerekētanga i ngā tau i mua i te 1991?
- E hia ngā piro a Ahitereiria? Nō reira e hia ngā kaute ka riro i a rātou mō ngā piro e toru, mēnā e 4 ngā kaute ka riro mō te piro kotahi?

Hei tauira rautaki – ka tuhia he whārite e whai wāhi mai ana te whakarea me te tāpiri:

Ahitereiria:  $(3 \times 4) + (2 \times 2) + (3 \times 3) = 12 + 4 + 9 = 25$

Ngā Ōpango:  $(4 \times 4) + (2 \times 3) + (3 \times 1) = 16 + 6 + 3 = 25$

Nō reira he ōrite ngā kaute whakamutunga.

### 3. I neherā, kotahi noa iho te kaute ka riro mō te piro kotahi, e 2 mō te whana piro, e 3 tonu mō te whana hāmene. Me he pēnei anō te maha o ngā piro, ngā whana piro me ngā whana hāmene a ia kapa, ko wai te kapa toa i aua tau o neherā?

He pātai āwhina he tuku mā te kaiako (ina hiahia):

- Titiro ki te kapa tuarua o te tūtohi. He aha te rerekētanga i ngā tau o neherā?
- E hia ngā piro a Ahitereiria? Nō reira e hia ngā kaute ka riro i a rātou mō ngā piro e toru, mēnā e 4 ngā kaute ka riro mō te piro kotahi?

Hei tauira rautaki – ka tuhia he whārite tāpiritanga:

Ahitereiria:  $1 + 1 + 1 + 2 + 2 + 3 + 3 + 3 = 16$

Ngā Ōpango:  $1 + 1 + 1 + 1 + 2 + 2 + 2 + 3 = 13$

Nō reira ko Ahitereiria te kapa toa mēnā kotahi noa iho te kaute ka riro mō ia piro.