

## Task: He Taiapa

Approach: Stations

Focus: Using algebraic reasoning to solve problems

Resources: Ngā rākau taiapa 16

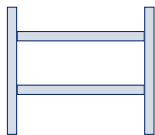
Kupu:



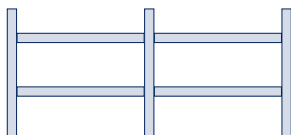
### Questions / instructions:

%  
response

E 4 ngā rākau hei hanga i tēnei taiapa.  
Kotahi te wāhanga o tēnei taiapa:



E 7 ngā rākau hei hanga i tēnei taiapa,  
e 2 ngā wāhanga:



1. Whakamahia ngā rākau ki te hanga taiapa, kia  
4 ngā wāhanga. Tāngia te taiapa ki kōnei.

correctly drawn with 4 sections (five verticals)

60

2. Tuhia he ture mō tēnei taurira?

number of sticks =  $3x + 1$  (any letter, any order)

0

rule for number of sticks  
described in words clearly

4

other valid rule

11

(e.g. one more post than number of sections)

3. E hia ngā rākau hei hanga i ngā wāhanga  
10 o te taiapa?

31

27

4. E hia ngā rākau hei hanga i ngā wāhanga  
100 o te taiapa?

301

7

### Commentary:

Sixty percent of the students were able to continue the geometric pattern with materials. However, most students had difficulty with questions requiring students to express or apply the algebraic rule for the relationship between the two variables.