

Trend Task: Playing with Perimeter

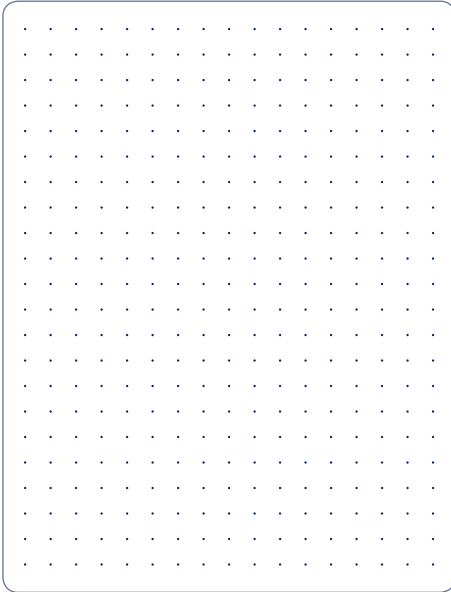
Approach: Independent
 Focus: Perimeter and area
 Resources: Ruler, answer booklet

Year: 8

Questions / instructions:

Shapes with the same perimeter can have different areas.

- Draw 3 rectangles that have perimeters of 24 cm.
Write the area in the middle of each rectangle.



First Rectangle:

Drew: rectangle
Perimeter: 24 cm
Correct area given: with units (cm²)
 correct area given, no units/cms ONLY

Second Rectangle:

Drew: rectangle
Perimeter: 24 cm
Correct area given: with units (cm²)
 correct area given, no units/cms ONLY

Third Rectangle:

Drew: rectangle
Perimeter: 24 cm
Correct area given: with units (cm²)
 correct area given, no units/cms ONLY

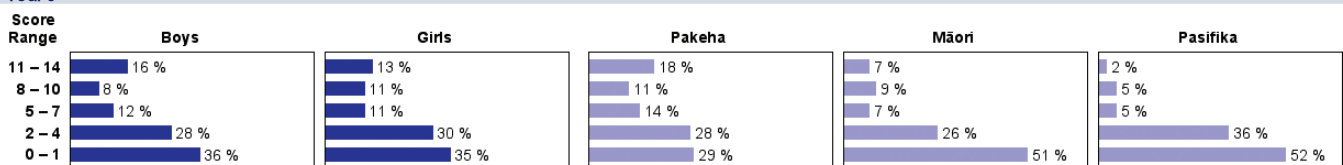
Overall:

drew three rectangles, all with 24 cm perimeters, all with different areas
 drew three rectangles, all with 24 cm perimeters, two or more with same areas

| Score Range | % response 2009 ('05) |
|-------------|-----------------------|
| 11-14 | 14 (19) |
| 8-10 | 10 (10) |
| 5-7 | 12 (6) |
| 2-4 | 28 (30) |
| 0-1 | 36 (35) |

Subgroup Analyses:

Year 8



Commentary:

Many year 8 students were not skilled in calculating the perimeters or areas of rectangles. There was little change in performance from 2005 to 2009. About half of Māori and Pasifika students and 29% of Pakeha students had virtually no success with this task.