

Trend Task: Multiplication (Y8)

Approach: Independent
 Focus: Multiplying without a calculator
 Resources: Answer booklet

Year: 8

Questions / instructions:

Work out the answers to the multiplication questions. Show how you work out your answers.

1. $22 \times 3 =$ 66 correct
 incorrect with clear computational error

Working used: horizontal strategy
 vertical algorithm

2. $39 \times 6 =$ 234 correct
 incorrect with clear computational error

Working used: horizontal strategy
 vertical algorithm

3. $4 \times 421 =$ 1684 correct
 incorrect with clear computational error

Working used: horizontal strategy
 vertical algorithm

4. $596 \times 2 =$ 1192 correct
 incorrect with clear computational error

Working used: horizontal strategy
 vertical algorithm

5. $5 \times 2808 =$ 14040 correct
 incorrect with clear computational error

Working used: horizontal strategy
 vertical algorithm

6. $59 \times 32 =$ 1888 correct
 incorrect with clear computational error

Working used: horizontal strategy
 vertical algorithm

7. $64 \times 4037 =$ 258368 correct
 incorrect with clear computational error

Working used: horizontal strategy
 vertical algorithm

% response
 2009 ('05)
year 8

88 (93)

2 (0)

39 (22)

17 (39)

56 (63)

7 (4)

37 (18)

22 (48)

64 (63)

6 (7)

36 (16)

22 (50)

64 (75)

7 (6)

33 (13)

24 (54)

47 (61)

8 (4)

30 (11)

24 (53)

% response
 2009 ('05)
year 8

25 (44)

7 (11)

23 (5)

27 (57)

17 (30)

7 (5)

14 (4)

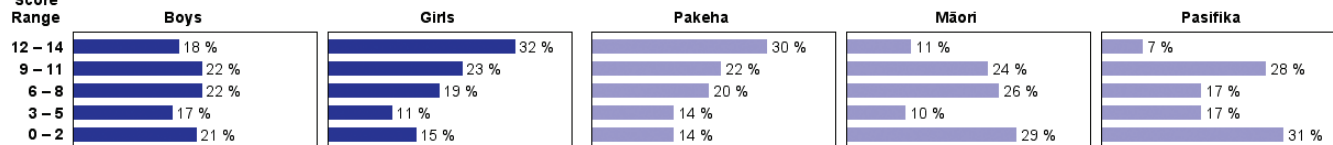
29 (53)

Total Score: 12–14 24 (39)
 9–11 23 (22)
 6–8 21 (19)
 3–5 14 (8)
 0–2 18 (12)

Subgroup Analyses:

Year 8

Score Range



Commentary:

There has been a large decrease in performance between 2005 and 2009, particularly where computation involved carrying or where both numbers included two or more digits. Strategy explanations show major change from vertical (algorithmic) strategies to horizontal strategies. Girls scored significantly higher than boys.