

Trend Task: Flies at the Barbecue

Approach: Independent

Year: 8

Focus: Solving an algebraic word problem

Resources: Answer booklet



Questions / instructions:

At a family barbecue 1 fly arrives in the 1st minute after the meat is put on the barbecue. In the 2nd minute 3 more flies arrive. In the 3rd minute 5 more flies arrive. In the 4th minute 7 more flies arrive. This pattern continues for the whole barbecue.

1. How many **more flies** arrive in the 10th minute?

Show how you work out your answer.

19

Working out:

(method, not accuracy)

rule identified $(2n-1)$ or equivalent

adding 2 repeatedly

other appropriate method

2. What is the **total number of flies** at the barbecue after 10 minutes?

Show how you work out your answer.

100

Working out:

(method, not accuracy)

rule identified (n^2) or equivalent

adding the 10 numbers

other appropriate method

3. How many **more flies** arrive in the 50th minute?

Show how you work out your answer.

99

Working out:

(method, not accuracy)

rule identified $(2n-1)$ or equivalent

adding 2 repeatedly

other appropriate method

Total score: 7–8

5–6

3–4

1–2

0

% response
2005 ('01)

year 8

52 (46)

4 (2)

52 (47)

8 (10)

26 (18)

0 (0)

23 (22)

6 (9)

15 (9)

5 (3)

6 (4)

7 (8)

3 (2)

9 (8)

21 (20)

42 (37)

25 (34)

Commentary:

This was a difficult algebra word problem, especially questions 2 and 3. Students in 2005 showed a moderate increase in solving these problems over the 2001 cohort.