GCSE FOUNDATION · REVISION MAT 1

Sampling

1 A head teacher wants to know what the 900 students in the school think about lunches. She asks 50 students.

(a) What is the population?

(b) What is the sample?

2 A head teacher wants to know what the 900 students in the school think about lunches. They asks only the students in the lunch queue.

Explain why this sample may be biased.

3 A head teacher wants to know what the 900 students in the school think about lunches. She asks 50 students.

Explain why a larger sample would give more reliable results.

4 A head teacher wants to know what the 900 students in the school think about lunches. She asks 50 students.

12 out of the 50 in the sample are vegetarian.

Show that this suggests about 216 of the students are vegetarian.

5 A survey includes this question:

"Don't you agree that school dinners are too expensive?"

Give one criticism of the question.

6 Two samples of 50 are taken from the 900 students in the school.
In the first, 12 are vegetarian. In the second, 15 are vegetarian.

Use both samples to estimate how many of the 900 students in the school are vegetarian.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 1

Sampling

1 (a) **900 students in the school**

(b) **50 students asked**

2 Students who do not eat school lunches are left out.

3 A larger sample is more likely to represent the whole population.

Results from small samples vary more by chance.

4 12 ÷ 50 × 900 = **216** ✓

5 It is a leading question.

6 Combined: 27 out of 100

27 ÷ 100 × 900 = **243**