** Statistical Inquiry (H)**

Post-Intervention Assessment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **Question** | **Objective** | **RAG** |
|  1 | Understand and apply types of sampling |  |
|  2 | Calculate averages from a table |   |
|  3 | Use the Petersen capture-recapture method to estimate population sizes |   |

**1**. There are a total of 300 students in Year 7, Year 8 and Year 9 at Mathsville High School.

The table shows information about the students.



The Headteacher takes a sample of 50 students.
His sample is stratified by year and by gender.

Work out the number of girls from Year 9 in the Headteacher's sample.

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**2.** 30 adults took part in a survey. They were each asked how much money they spent on lottery tickets last week. The table shows the results of the survey.

|  |  |  |
| --- | --- | --- |
| **Money (£)** | **Frequency** |  |
| 0 | 5 |  |
| 2 | 16 |  |
| 4 | 6 |  |
| 20 | 2 |  |
| 30 | 1 |  |

Work out the mean amount of money the 30 adults spent on lottery tickets.

£ ...........................................................

**3**. A gardener wants to estimate the number of snails in his garden.

One day he catches 156 snails. He puts a tag on each snail then releases them.

Then next day the gardener catches 123 snails.

34 of these snails have a tag on them.

Work out an estimate for the total number of snails in his garden.

Write down any assumptions you have made.

[Glue here]