**Submission date: w/c Monday 8th September 2025**

Task 1: Complete the Maths questions:

Show all your working where applicable.

**Section A: Basic Numeracy and Percentages (10 marks)**

A psychologist found that 18 out of 60 participants showed improvement after a therapy session.

What percentage of participants improved? (2 marks)

A memory test score improved from 48 to 60 after training.

Calculate the percentage increase in the score. (2 marks)

Convert the following decimal into a percentage:

0.375 (1 mark)

A researcher surveyed 200 people. 30% said they felt anxious daily.

How many people reported feeling anxious daily? (2 marks)

A psychologist had a budget of £1500 and spent £1050.

What percentage of the budget was spent? (3 marks)

**Section B: Averages and Data Handling (12 marks)**

A psychologist records the number of hours 5 participants sleep per night:

6, 7, 5, 9, 8

a) Find the mean (average) sleep time

b) Find the median sleep time

c) Find the mode of the data

(3 marks)

The results of a stress test are:

4, 6, 8, 6, 6, 7, 9

a) Calculate the range

b) What is the mean score?

(3 marks)

A psychologist measures reaction times (in seconds):

0.6, 0.8, 1.2, 0.9, 0.5

What is the median reaction time? (2 marks)

Why might the median be a better measure than the mean in skewed data? (2 marks)

What is a bar chart used for? (2 marks)

**Section C: Probability and Interpreting Data (8 marks)**

If the probability of a participant choosing "Yes" is 0.6, what is the probability of them choosing "No"? (1 mark)

A coin is flipped 100 times. How many times would you expect it to land on heads? (1 mark)

In an experiment, 12 out of 20 participants showed reduced anxiety.

What is the probability, in simplest fraction form, of randomly choosing someone who showed reduced anxiety? (2 marks)

A table shows results from a survey:

Response Number

Strongly Agree 8

Agree 12

Neutral 10

Disagree 6

Strongly Disagree 4

a) What is the total number of participants? (1 mark)

b) What fraction of participants disagreed or strongly disagreed? (1 mark)

c) What type of data is this: nominal, ordinal, or interval? (1 mark)

Task 2: Complete the fact file about Phineas Gage below: 

|  |  |
| --- | --- |
| Age (at time of accident): |  |
| Localisation of function is the idea that certain functions (e.g. language, memory, etc.) have certain locations or areas within the brain. What evidence does Phineas Gage provide for localisation of function? |  |
| This was a case study (a study of an individual person, small group or event) and a clear cause and effect was established. However, what are the criticisms of this study? |  |

Task 3: Define the key terms below:

Cue

Dual task study

Eyewitness testimony

Working memory

Case study

Replication

Validity

Generalisability