**Maths in Psychology: GCSE recap** *Name:*

*Rotter (1966) - Locus of Control (LOC)* *Score:*  /24

* Internal locus of control - people who believe they are the main cause of their behaviour, actions and situation.
* External locus of control - believe their decisions and life are controlled by environmental factors which they cannot influence, or are down to chance, luck or fate.

Rotter conducted a literature review and found that studies consistently showed that participants who felt they had control over a situation were more likely feel able to cope with new or challenging events than participants who thought that chance determined the effects of their behaviours.

Rotter developed a questionnaire, known as the Locus of Control Scale. This is a 13 item questionnaire where scores range from 0 to 13. A low score indicates an internal LOC while a high score indicates external LOC.

Total marks available: 24 Time allowed: Half an hour

You are allowed to use a calculator.

1. Below is an example of a set of data from the LOC questionnaire.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Participant  Number | Gender (M/F) | LOC score (/13) |  |
|  | 1 | F | 6 |  |
|  | 2 | M | 11 |  |
|  | 3 | M | 11 |  |
|  | 4 | F | 9 |  |
|  | 5 | M | 10 |  |
|  | 6 | M | 13 |  |
|  | 7 | F | 10 |  |
|  | 8 | F | 8 |  |
|  | 9 | M | 11 |  |
|  | 10 | F | 9 |  |

a) Calculate and fill in the blank table below:

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | LOC score (/13) |  |
| 1. Mean | Mean |  | (1 mark) |
| 1. Median | Median |  | (1 mark) |
| 1. Mode | Mode |  | (1 mark) |
| 1. Range | Range |  | (1 mark) |

b) Calculate and fill in the blank table below for both males and females:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | LOC score (/13) | |  |
|  |  | Males | Females |  |
| 1. Mean | Mean |  |  | (2 marks) |
| 1. Median | Median |  |  | (2 marks) |
| 1. Mode | Mode |  |  | (2 marks) |
| 1. Range | Range |  |  | (2 marks) |

|  |  |
| --- | --- |
| c) Write one sentence explaining what your interpretation of these figures is (in terms of gender and LOC). | (1 mark) |
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| d) Draw a bar chart to represent the mean LOC scores of for males and females males and females. You will get marks for:  *a title; an appropriate scale on the y axis; appropriate labelling and accurate plotting.* | (4 marks) |

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2. The table below shows the results of an obedience study.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Male | Female | Total |  |
|  | Obeyed | 36 | 24 |  |  |
|  | Disobeyed | 52 | 64 |  |  |
|  |  | 88 | 88 |  |  |

|  |  |
| --- | --- |
| a) Complete the table. | (3 Marks) |

|  |  |
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| b) What percentage of the participants disobeyed? | (1 mark) |

\_\_\_\_\_\_\_\_ %

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| --- | --- |
| c) What percentage of the participants were males who obeyed? | (1 mark) |

\_\_\_\_\_\_\_\_ %

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| 3.   1. What is 0.83746 to two decimal places?   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. What is 0.0000058763 to two significant figures?   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | (1 mark)  (1 mark) |