

1(a).

Looks tasty? A psychologist wanted to investigate how expectations influence our perception of food. To do this she conducted an experiment where she presented one group of participants a bag of crisps labelled as 'premium range' in a bright and colourful packet. A different group of participants were presented with the same crisps but labelled as 'budget range' in a plain packet. After eating some of the crisps participants were asked to rate how tasty they were on a scale of 1 ('yuk') to 20 ('yummy').

Ratings of how tasty crisps were (1–20)	
Premium labelled brand	Budget labelled brand
14	8
18	3
20	10
8	6
18	18
12	14
10	8
19	4
15	7
16	8
18	8
12	2

Name the appropriate inferential statistical test to analyse the data in this study. Give reasons for your answer.

(b). Explain how you would find the critical value to compare the calculated value to after conducting this test.

----- [2]

(c). Outline **one** conclusion that could be made about this study if $p < 0.05$ appeared in the significance statement after conducting this test.

----- [4]

2(a).

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4. What is the name given to data that is collected directly by researchers themselves, rather than obtaining it from another person or source?

- A direct
- B nominal
- C primary
- D secondary

Your answer

[1]

5. Which of the following is **not** related to external validity?

- A the extent to which findings can be applied to other places
- B the extent to which findings can be obtained at other times
- C the extent to which findings can be related to other people not involved in the research
- D the extent to which findings can be repeated by testing the same people in the same way

Your answer

[1]

6. Below is some data from three people in a study that recorded the reaction time in seconds taken to solve a puzzle when background noise was being played:

25.89, 16.21, 20.92 ~ 26, 16, 21

What does the symbol (~) in between these sets of data mean?

- A approximately equal to
- B equal to
- C proportional to
- D related to

Your answer

[1]

7(a). A survey was conducted asking a group of students how much they slept each night.



What type of display is used to present the data in the image above?

- A bar-chart
- B histogram
- C line graph
- D scatter diagram

Your answer

[1]

(b). How many students reported sleeping between 8 and 12 hours?

- A 3
- B 12
- C 15
- D 25

Your answer

[1]

(c). What was the overall total sample size in this survey?

- A 15
- B 20
- C 25
- D 30

Your answer

[1]

8.

TV treats. People often eat snack foods, such as crisps, nuts and chocolate whilst watching TV. It may be that the more TV that is watched, the more snack foods are eaten. To investigate this a psychologist wants to use the correlation technique to see if there is a relationship between the amount of TV watched and snack foods eaten.

Name the type of graph that would be used to display the data from a correlation analysis.

----- [1]

9.

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Explain how you could reduce the possibility of social desirability in this study.

----- [4]

10.

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Explain what the term 'criterion validity' refers to in this study.

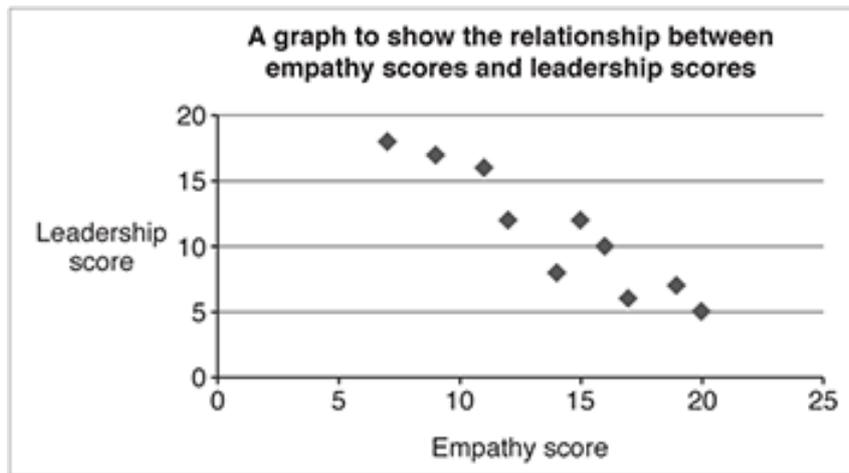
[3]

11(a).

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13. Look at the following scatter diagram.



Which is the best estimate of the correlation coefficient for the above data?

- A -0.7
- B -0.2
- C $+0.2$
- D $+0.7$

Your answer

[1]

14. A binomial sign test is correctly used to assess the significance of a set of results.

What level of data and type of design are necessary to carry out this test?

- A nominal level data using a repeated measures design
- B nominal level data using an independent measures design
- C ordinal level data using a repeated measures design
- D ordinal level data using an independent measures design

Your answer

[1]

15. Which of these is associated with the term 'demand characteristics'?

- A changes in participants' behaviour as a consequence of knowing they are being studied
- B compulsory things that the participants must do
- C instructions given to the participants by the researcher
- D personality traits of the participants

Your answer

[1]

18.

A psychologist conducted an observation study to investigate how people react when walking towards each other along a corridor in a building where lots of different office staff work. To do this, she asked for permission to set up hidden cameras for a day to record people's encounters along one of the main corridors connecting one part of the building to another. The results from the study are shown in the table below.

Table 1: Different behaviours observed as two people approach each other in a corridor

Avoids eye contact	Smiles	Says hello	Makes eye contact	Nods	total
80	48	40	24	8	200

What level of data is obtained in this study?

----- [1]

19.

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What is the ratio of the number of times people avoided eye contact to the number of times people said hello?

----- [2]

20.

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What is the mode for the type of behaviour observed by people as they approach each other in the corridor?

----- [1]

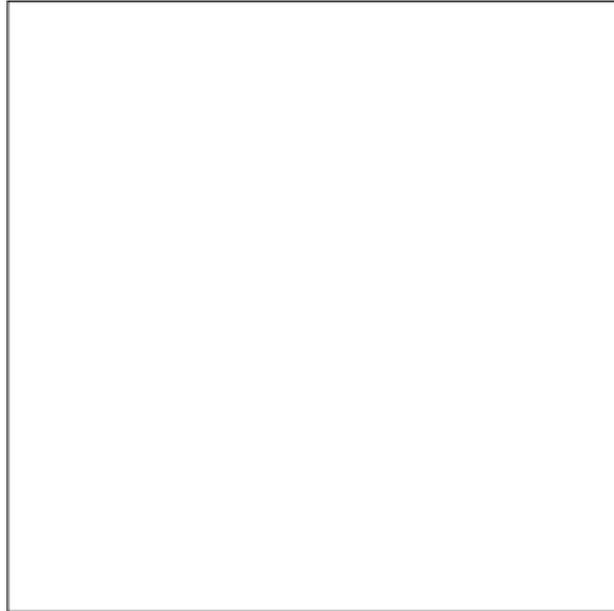
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Sketch a pie chart to show the data recorded in this study.



[4]

22.

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Avoids eye contact	Smiles	Says hello	Makes eye contact	Nods	total
80	48	40	24	8	200

Outline **two** conclusions that can be made from the data collected in this study.
