TYPES OF DATA

AtoZrevision

PRIMARY AND SECONDARY DATA. QUALITATIVE AND QUANTITATIVE VARIABLES. DISCRETE AND CONTINUOUS DATA.

MARK SCHEME

Q1. AtoZrevision.com

(d)			B2

	Type of data
Number of people	Quantitative
Type of music	Qualitative
Age of people in years	Quantitative

(2)

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Question	Scheme	Marks
(a)(i)	e.g. weight, height/length, (shoulder) width	B1
(ii)	Continuous	B1 ft (2)
(b)(i)	Secondary as collected by someone else	B1
(ii)	Advantage: Any one of cheaper/quicker/easier	B1ft
	Disadvantage: Any one of - may be out of date - *unknown* reliability (condone *not* reliable) - may not include the required information	B1ft (3) **[5]**
	Notes	
(a)(i)	Any sensible **numeric variable** which relates to size, (But 'size' alone is B0) B0 for 'age'	
(a)(ii)	B1 is follow through. e.g. For 'size' or 'age' in (i) accept 'continuous' here For 'size: Large/Medium/Small' in (i) accept 'qualitative' here Note: if no answer to (i) then B0 here.	
(b)(i)	Allow equivalent wording but must indicate 'secondary' (they might indicate by circle/underline in the question)	
(b)(ii)	Answers here must be consistent with (i). If no answer to (i) then B0 here Allow equivalent wording for each. (Condone 'accuracy' for 'reliability') **NB:** If answer to (b)(i) is '**primary**' then apply: Advantage: Any one of - up to date B1ft - *known* reliability (condone *more/is* reliable) - can ensure you get the information needed Disadvantage: Any one of - more expensive B1ft - time consuming - more work	

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(b)(i)	Data collected by the person using it	B1	
(ii)	Know how data was obtained/Reliability is known/Up to date	B1	
			(2)

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(c)(i)	B1 e.g. primary data is data you collect yourself. B1 e.g. secondary data is data collected by someone else.		(2)
(c)(ii)	B1 e.g. known reliability, no secondary data available		(1)

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(a)	B1 ordinal		(1)

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Question number	Answer	Additional guidance	Mark
(a)(i)	M1 Reading off the graph at 0.75×48 (36) A1 answer in the range 3200 to 3600	M1 for reading off graph at 75% A1 for answer in range Condone use of $n + 1$	(2)
(ii)	B1 e.g. '75% of counties have an area of '3400' sq km or less'	B1 for correct interpretation in context	(1)
(b)	M1 Reading a cumulative frequency off graph at 2000 M1 '19' + 24 (= 43) A1 answer in the range $4400 < k < 4800$	M1 may be implied by 19 identified. M1 for adding 24 to their value A1 for answer in range Note: working may be seen on or next to the graph	(3)

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Question	Answer	Additional guidance	Mark
(a)	B2 continuous ordinal discrete	B2 for all 3 correct (B1 for any 1 correct)	(2)
(b)	B1 eg 'gender'	B1 for any relevant qualitative variable	(1)
(c)	B1 eg 'computer software/spreadsheet'	B1 for a suitable tool to help process data quickly	(1)

Q8.

Question	Scheme	Marks
*(a)	• Data is **continuous** (Otherwise B1 for 'quantitative'/'numerical' o.e.)	B2 (2)
*(b)	• Data is **secondary** (allow **not primary**) so reliability is unknown.	B2 (2)

Q9.

Question number	Answer	Additional guidance	Mark
(a)	B2 for 4 correct rows	B1 for 3 correct rows	(2)

Variable	Explanatory	Response	Extraneous
Age of person			✓
Left/Right handedness	✓		
Gender of person			✓
Number of objects memorised		✓	

Q10.

Question number	Answer	Additional guidance	Mark
(a)	B1B1 for two correct problems e.g. • Data may not be up to date • Data may not be in the required format • Some data may be missing • Reliability of website may not be known		(2)
(b)	B1 • Rugby team mean > football team mean B1 • Rugby team range > football team range B1 e.g. • the rugby team are heavier / football team are lighter • the rugby team have less consistent weights / the football team have more consistent weights	B1B1 for correct statistical reasoning comparing means and ranges B1 for contextual interpretation of a comparison of means or ranges	(3)
(c)	E.g. not able to access all of the players	B1 for any suitable appreciation that secondary data is appropriate	(1)

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Question number	Answer	Additional guidance	Mark
(a)(i)	B1 type of game		(1)
(a)(ii)	B1 minimum number of players		(1)

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B1 e.g. not able to access all of the players	B1 for any correct comment identifying an issue with the collection of primary data in this case Condone asking about income is a personal question	(1)

Q13. AtoZrevision.com

Question	Answer	Additional Guidance	Marks
(a)(i)	B2 Two reasons from: • Grouping data can help to spot patterns in the data. • Makes it easier to process large amounts of data. • Easy to compare different groups • The data is easier to read. • The data is easier to represent on graphs.	Or any other valid reason (B1 for only one reason)	(2)
(ii)	B1 – We lose the detail/accuracy when grouping data e.g. we do not know the maximum and minimum values or we can only calculate estimates of statistical values.	Or any other valid reason.	(1)