FOUNDATION

# 1.4 Pilot Surveys (Foundation): 1-hour Pack

EDEXCEL 1ST0 · Calculator allowed · about 60 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** A pilot survey about school lunches found this problem: "Pilot respondents gave very different readings of the word 'often'."

(a) Explain what the problem suggests about the questionnaire.

(b) State what should be done before the main survey.

**(Total for Question 1 is 2 marks)**

**2** A survey asks: "Do you think a new cinema is cheap and also good quality?"

(a) Explain why this is a poor question.

(b) Suggest how to fix it.

**(Total for Question 2 is 2 marks)**

**3** A survey question asks: "How often do you use the school uniform?" with response boxes 'never', 'sometimes', 'often'.

(a) Explain why these response boxes are not good.

(b) Suggest an improvement.

**(Total for Question 3 is 2 marks)**


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**4** A survey question asks: "How often do you use a school trip?" with response boxes 'never', 'sometimes', 'often'.

(a) Explain why these response boxes are not good.

(b) Suggest an improvement.

**(Total for Question 4 is 2 marks)**

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**5** In a pilot, 50 questionnaires about cycling to school were sent out and 42 were returned.

(a) Work out the response rate as a percentage, to 1 decimal place if needed.

(b) The main survey needs 1000 returned questionnaires. Estimate how many must be sent out if the response rate stays the same. Round up to a whole number.

**(Total for Question 5 is 4 marks)**

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**6** In a pilot, 50 questionnaires about a new sports centre were sent out and 37 were returned.

(a) Work out the response rate as a percentage, to 1 decimal place if needed.

(b) The main survey needs 500 returned questionnaires. Estimate how many must be sent out if the response rate stays the same. Round up to a whole number.

**(Total for Question 6 is 4 marks)**


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**7** A student writes this question for a survey about a town library:

"Do you agree that a town library is clearly excellent and that everyone should support it?"

(a) Give one reason why this is a poor question.
(b) Write a better question.

**(Total for Question 7 is 3 marks)**

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**8** A pilot survey about homework found this problem: "The pilot took 40 minutes, far longer than planned."
(a) Explain what the problem suggests about the questionnaire.
(b) State what should be done before the main survey.

**(Total for Question 8 is 2 marks)**

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**9** A survey asks: "Do you think healthy eating is cheap and also good quality?"
(a) Explain why this is a poor question.
(b) Suggest how to fix it.

**(Total for Question 9 is 2 marks)**


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**10** A pilot survey about a town library was given to 10 people and took 120 minutes in total to complete.

(a) Work out the mean time per person.

(b) Estimate the total time needed to survey 300 people, in minutes.

(c) Give one reason for carrying out a pilot survey.

**(Total for Question 10 is 4 marks)**

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**11** A survey about social media use includes the question "How much money does your family earn each year?" with an empty box for the answer.

(a) Give one reason why many people may not answer this.

(b) Suggest how the question could be changed to make people more willing to answer.

**(Total for Question 11 is 2 marks)**

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**12** A student writes this question for a survey about a local park:

"Do you agree that a local park is clearly excellent and that everyone should support it?"

(a) Give one reason why this is a poor question.

(b) Write a better question.

**(Total for Question 12 is 3 marks)**


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**13** A pilot survey about bus services was given to 10 people and took 40 minutes in total to complete.

(a) Work out the mean time per person.

(b) Estimate the total time needed to survey 300 people, in minutes.

(c) Give one reason for carrying out a pilot survey.

**(Total for Question 13 is 4 marks)**

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**14** A survey question asks: "How often do you use homework?" with response boxes 'never', 'sometimes', 'often'.

(a) Explain why these response boxes are not good.

(b) Suggest an improvement.

**(Total for Question 14 is 2 marks)**

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**15** A survey asks: "Do you think mobile phone use in lessons is cheap and also good quality?"

(a) Explain why this is a poor question.

(b) Suggest how to fix it.

**(Total for Question 15 is 2 marks)**

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**16** In a pilot, 40 questionnaires about a new cinema were sent out and 16 were returned.

(a) Work out the response rate as a percentage, to 1 decimal place if needed.

(b) The main survey needs 800 returned questionnaires. Estimate how many must be sent out if the response rate stays the same. Round up to a whole number.

**(Total for Question 16 is 4 marks)**


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**17** A survey asks: "Do you think social media use is cheap and also good quality?"

(a) Explain why this is a poor question.

(b) Suggest how to fix it.

**(Total for Question 17 is 2 marks)**

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**18** A survey about the school uniform includes the question "How much money does your family earn each year?" with an empty box for the answer.

(a) Give one reason why many people may not answer this.

(b) Suggest how the question could be changed to make people more willing to answer.

**(Total for Question 18 is 2 marks)**

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**19** A pilot survey about a town library found this problem: "The pilot took 40 minutes, far longer than planned."

(a) Explain what the problem suggests about the questionnaire.

(b) State what should be done before the main survey.

**(Total for Question 19 is 2 marks)**

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**20** A survey about a town library includes the question "How much money does your family earn each year?" with an empty box for the answer.

(a) Give one reason why many people may not answer this.

(b) Suggest how the question could be changed to make people more willing to answer.

**(Total for Question 20 is 2 marks)**


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**21** A pilot survey about recycling found this problem: "The pilot took 40 minutes, far longer than planned."

(a) Explain what the problem suggests about the questionnaire.

(b) State what should be done before the main survey.

**(Total for Question 21 is 2 marks)**

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**22** A survey question asks: "How often do you use bus services?" with response boxes 'never', 'sometimes', 'often'.

(a) Explain why these response boxes are not good.

(b) Suggest an improvement.

**(Total for Question 22 is 2 marks)**

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**23** A pilot survey about homework was given to 12 people and took 120 minutes in total to complete.

(a) Work out the mean time per person.

(b) Estimate the total time needed to survey 100 people, in minutes.

(c) Give one reason for carrying out a pilot survey.

**(Total for Question 23 is 4 marks)**


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# Mark scheme · 1.4 Pilot Surveys (Foundation): 1-hour Pack

## Question 1

| | |
|---|---|
| identifies the likely issue: the wording is vague | B1 |
| changes the questionnaire: give numerical response boxes | B1 |

**Answer: the wording is vague, so give numerical response boxes**

## Question 2

| | |
|---|---|
| it is a double question (asks two things at once, so the answer is unclear) | B1 |
| ask two separate questions, one about cost and one about quality | B1 |

**Answer: (a) double-barrelled question; (b) split into two separate questions**

## Question 3

| | |
|---|---|
| the words are vague (different people read 'sometimes' and 'often' differently) | B1 |
| give time periods or numbers, e.g. 0 times, 1 to 2 times, 3 or more times per week | B1 |

**Answer: (a) the response words are vague; (b) use numbers of times per week**

## Question 4

| | |
|---|---|
| the words are vague (different people read 'sometimes' and 'often' differently) | B1 |
| give time periods or numbers, e.g. 0 times, 1 to 2 times, 3 or more times per week | B1 |

**Answer: (a) the response words are vague; (b) use numbers of times per week**

## Question 5

| | |
|---|---|
| 42/50 x 100 | M1 |
| 84% cao | A1 |
| 1000 / (21/25) or 1000 x 50/42 | M1 |
| 1191 cao | A1 |

**Answer: (a) 84%; (b) 1191**

## Question 6

| | |
|---|---|
| 37/50 x 100 | M1 |
| 74% cao | A1 |
| 500 / (37/50) or 500 x 50/37 | M1 |
| 676 cao | A1 |

**Answer: (a) 74%; (b) 676**

## Question 7

| | |
|---|---|
| it is a leading question (it pushes the respondent towards one answer) | B1 |
| a neutral wording with no persuasion | M1 |
| includes a range of response options (closed) or is clearly open and unbiased | A1 |

**Answer: (a) leading question; (b) e.g. What is your opinion of a town library? (very good, good, neutral, poor, very poor)**

## Question 8

| | |
|---|---|
| identifies the likely issue: the questionnaire is too long | B1 |
| changes the questionnaire: shorten it | B1 |

**Answer: the questionnaire is too long, so shorten it**

## Question 9

| | |
|---|---|
| it is a double question (asks two things at once, so the answer is unclear) | B1 |
| ask two separate questions, one about cost and one about quality | B1 |

**Answer: (a) double-barrelled question; (b) split into two separate questions**

## Question 10

| | |
|---|---|
| 120 / 10 | M1 |
| 12 minutes | A1 |
| 3600 minutes | B1 |
| to test the questions / check they are understood / estimate time and cost before the full survey | B1 |

**Answer: (a) 12 minutes; (b) 3600 minutes; (c) to test the questions before the full survey**

## Question 11

| | |
|---|---|
| personal or sensitive question, so people may refuse or give false answers | B1 |
| use response boxes with ranges (e.g. under 20 000, 20 000 to 40 000, over 40 000) or make the survey anonymous | B1 |

**Answer: (a) the question is personal and sensitive; (b) use income ranges or make the survey anonymous**

## Question 12

| | |
|---|---|
| it is a leading question (it pushes the respondent towards one answer) | B1 |
| a neutral wording with no persuasion | M1 |
| includes a range of response options (closed) or is clearly open and unbiased | A1 |

**Answer: (a) leading question; (b) e.g. What is your opinion of a local park? (very good, good, neutral, poor, very poor)**

## Question 13

| | |
|---|---|
| 40 / 10 | M1 |
| 4 minutes | A1 |
| 1200 minutes | B1 |
| to test the questions / check they are understood / estimate time and cost before the full survey | B1 |

**Answer: (a) 4 minutes; (b) 1200 minutes; (c) to test the questions before the full survey**

## Question 14

| | |
|---|---|
| the words are vague (different people read 'sometimes' and 'often' differently) | B1 |
| give time periods or numbers, e.g. 0 times, 1 to 2 times, 3 or more times per week | B1 |

**Answer: (a) the response words are vague; (b) use numbers of times per week**


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## Question 15

| | |
|---|---|
| it is a double question (asks two things at once, so the answer is unclear) | **B1** |
| ask two separate questions, one about cost and one about quality | **B1** |

**Answer: (a) double-barrelled question; (b) split into two separate questions**

## Question 16

| | |
|---|---|
| 16/40 x 100 | **M1** |
| 40% cao | **A1** |
| 800 / (2/5) or 800 x 40/16 | **M1** |
| 2000 cao | **A1** |

**Answer: (a) 40%; (b) 2000**

## Question 17

| | |
|---|---|
| it is a double question (asks two things at once, so the answer is unclear) | **B1** |
| ask two separate questions, one about cost and one about quality | **B1** |

**Answer: (a) double-barrelled question; (b) split into two separate questions**

## Question 18

| | |
|---|---|
| personal or sensitive question, so people may refuse or give false answers | **B1** |
| use response boxes with ranges (e.g. under 20 000, 20 000 to 40 000, over 40 000) or make the survey anonymous | **B1** |

**Answer: (a) the question is personal and sensitive; (b) use income ranges or make the survey anonymous**

## Question 19

| | |
|---|---|
| identifies the likely issue: the questionnaire is too long | **B1** |
| changes the questionnaire: shorten it | **B1** |

**Answer: the questionnaire is too long, so shorten it**

## Question 20

| | |
|---|---|
| personal or sensitive question, so people may refuse or give false answers | **B1** |
| use response boxes with ranges (e.g. under 20 000, 20 000 to 40 000, over 40 000) or make the survey anonymous | **B1** |

**Answer: (a) the question is personal and sensitive; (b) use income ranges or make the survey anonymous**

## Question 21

| | |
|---|---|
| identifies the likely issue: the questionnaire is too long | **B1** |
| changes the questionnaire: shorten it | **B1** |

**Answer: the questionnaire is too long, so shorten it**

## Question 22

| | |
|---|---|
| the words are vague (different people read 'sometimes' and 'often' differently) | **B1** |
| give time periods or numbers, e.g. 0 times, 1 to 2 times, 3 or more times per week | **B1** |

**Answer: (a) the response words are vague; (b) use numbers of times per week**

## Question 23

| | |
|---|---|
| 120 / 12 | **M1** |
| 10 minutes | **A1** |
| 1000 minutes | **B1** |
| to test the questions / check they are understood / estimate time and cost before the full survey | **B1** |

**Answer: (a) 10 minutes; (b) 1000 minutes; (c) to test the questions before the full survey**


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