

Design Briefs and Specifications

1 Write a design brief for a product that might help in each of the following situations.

a) A plumber has a large number of tools. He spends a lot of time having to sort through them to find the right one.

.....

[1 mark]

b) Young children can get bored whilst travelling on a long journey.

.....

[1 mark]

2 A company has completed some market research for a new CD rack — the results of part of their findings are shown in **Figure 1**. The company has then written a design specification (shown in **Figure 2**) for a designer to refer to when designing the CD rack.

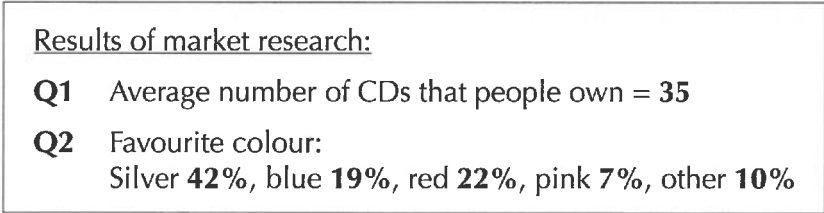


Figure 1

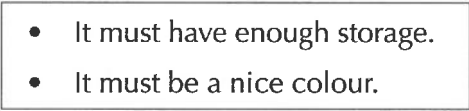


Figure 2

a) Explain why these specification points wouldn't help the designer.

.....

[1 mark]

b) Suggest a rewording for the **two** specification points in **Figure 2** so that they are more helpful. You should include an explanation as to how each point has been decided upon.

Point 1:

.....

[2 marks]

Point 2:

.....

[2 marks]

3 A pet accessories company are designing a new product. The design brief is shown in **Figure 3**.

Design a high quality cage for pet mice to live outside in all year round. There are currently very few commercially available products that do this. The cage will be sold to owners that want to keep their mice outdoors.

Figure 3

The company are thinking about carrying out some research for their product.

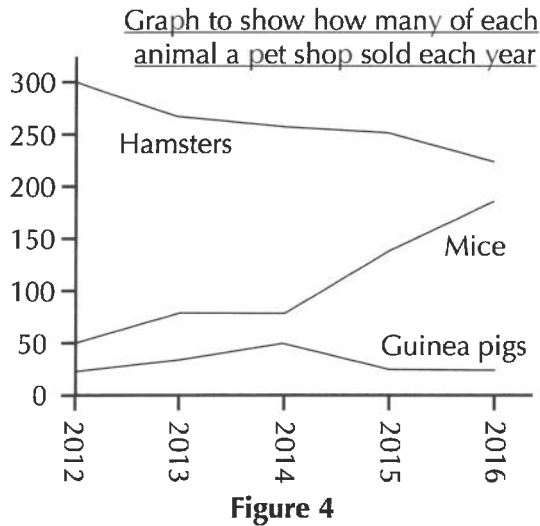
a) i) Give **two** reasons why the company would want to carry out research.

1.
 2.
- [2 marks]

ii) The company decide to carry out some market research. Name **one** other type of research that could be carried out by the company, and describe what it would involve.

-
-
- [2 marks]

b) **Figures 4** and **5** show the findings from the market research.



- 87% of people who have mice as pets say they keep their mice indoors.
- 18% of all owners say they would keep their mice indoors all the time if they had a choice.
- Of the people who keep their mice outside, 98% say they only keep the cage outside during the summer, as this is the only time when it is a comfortable temperature for the mice.
- Experts say the cage needs to be well-ventilated, so a wire mesh is best for cage walls. Well-ventilated cages are very difficult to heat though.

Figure 5

i) State **two** conclusions that can be drawn from **Figure 4**.

1.
 2.
- [2 marks]

ii) The conclusions of the market research have led the company to reconsider the design brief. Suggest **one** change that should be made to the design brief. Give a reason for your answer.

-
-
-
- [2 marks]

Score: / 14



Market Research

1 Designs are often aimed at specific target markets.

a) i) What is a target market?

.....
[1 mark]

ii) Target markets can be defined by age or lifestyle.
Give **two** other ways in which a target market can be defined.

1.
2.
[2 marks]

b) Identify a possible target market for the pin-striped suit shown in **Figure 1**.
Explain your answer.



Figure 1

.....
.....
[2 marks]

2 A company are carrying out some market research for a computer games carry case that they are designing. They received 25 responses to their questionnaire. These are summarised in **Figure 2**.

Results of market research:

Q1 Average number of hours spent on computer per week = **12**

Q2 Average number of computer games they'd want to transport at once = **5**

Q3 Most common size of computer game = **19 cm x 14 cm**

Q4 How often they take their games to a friend's house per week:
less than once **32%**, once **36%**, twice **20%**, 3 times **8%**, 4 or more times **4%**

Figure 2

a) Describe how these findings would affect the design of the product.

.....
.....
.....
[2 marks]

b) Suggest **two** additional questions for this market research that haven't been answered by the results shown in **Figure 2**. Give **one** closed question and **one** open question.

Closed question:

.....
[1 mark]

Open question:

.....
[1 mark]

- c) The company wants to present the results from **Figure 2 Q4** as a pie chart. Complete the pie chart shown in **Figure 3** to show these results. You must show your working.

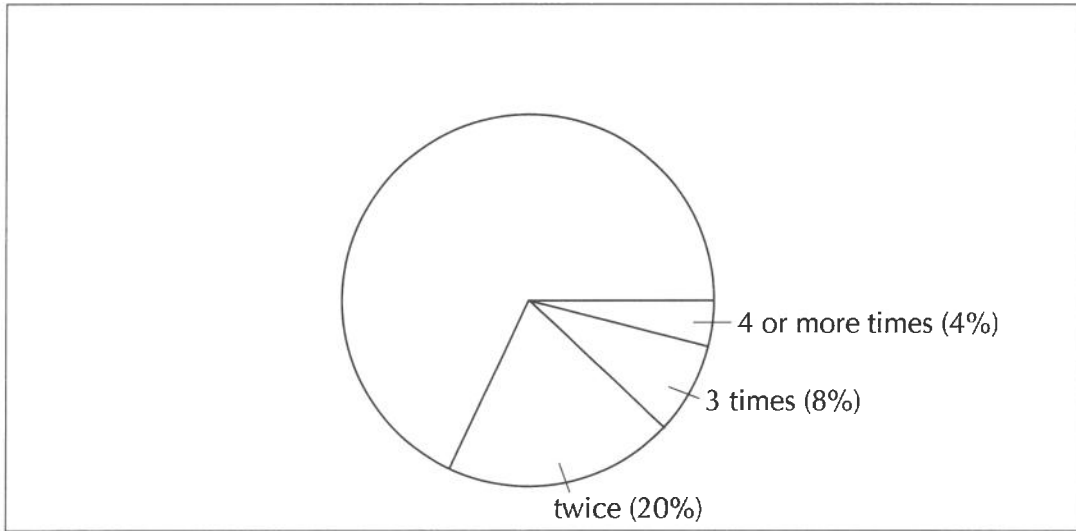


Figure 3

Use this space to show your working.

.....

[2 marks]

- d) The makers of the carry case want to carry out further research using interviews and focus groups.

- i) Suggest **one** advantage of using interviews rather than questionnaires during market research.

.....

 [1 mark]

- ii) Why can audio recordings be useful during an interview?

.....

 [1 mark]

- iii) What is the aim of a focus group?

.....

 [1 mark]

Score: / 14

