

## UNIT 11 Data Collection and Presentation

## Mental Tests

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### M 11.1 Standard Route (*no calculator*)

*Pupils will need a copy of Statistical Diagrams A*

*Questions 1 to 6 refer to the Bar Chart on Statistical Diagrams A.*

1. How many people owned a *red* car? (8)
2. How many people owned a *white* car? (9)
3. How many people were included in the survey? (32)
4. What was the most popular car colour? (white)
5. What was the *least* popular car colour? (green)
6. How many people owned a *blue* or a *red* car? (14)

*Questions 7 to 10 refer to the Pie Chart on Statistical Diagrams A.*

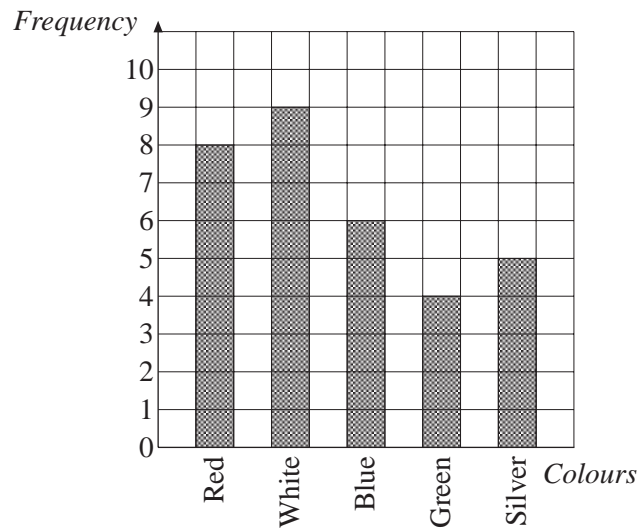
7. What fraction of the people chose chips? ( $\frac{1}{2}$ )
8. Was rice more popular than pasta? (yes)
9. Were baked potatoes more popular than rice? (yes)
10. If 80 people were included in the survey, how many chose chips? (40)

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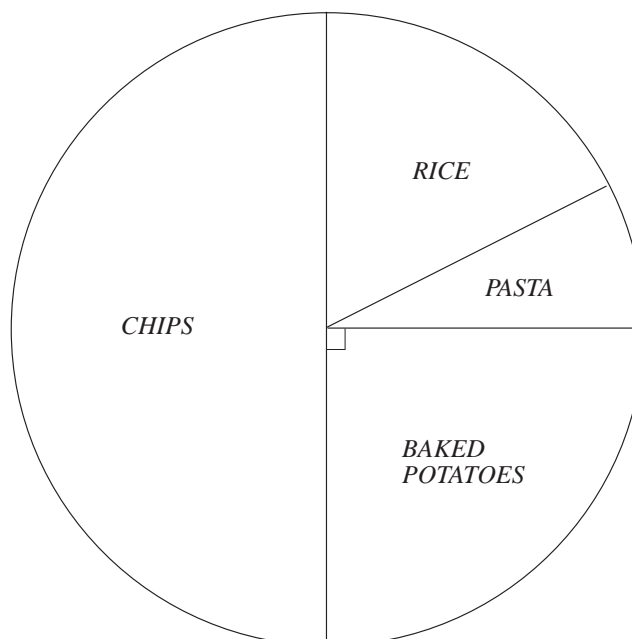
# Mental Tests

## Statistical Diagrams A

*Results of Survey into Colours of Cars Owned by People in a Small Village*



*Results of Survey to Determine Preferences for Pasta, Rice, Baked Potatoes or Chips*



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### M 11.2 Standard Route *(no calculator)*

*Pupils will need a copy of Statistical Diagrams B*

*Questions 1 to 5 refer to the Bar Chart on Statistical Diagrams B.*

1. How many pupils owned hamsters? (9)
2. How many pupils owned a cat? (10)
3. What was the most popular pet? (cat)
4. What was the least popular pet? (rabbit)
5. If 2 pupils owned *both* a cat and a dog, how many owned a dog but *not* a cat? (5)

*Questions 7 to 10 refer to the Pictogram on Statistical Diagrams B.*

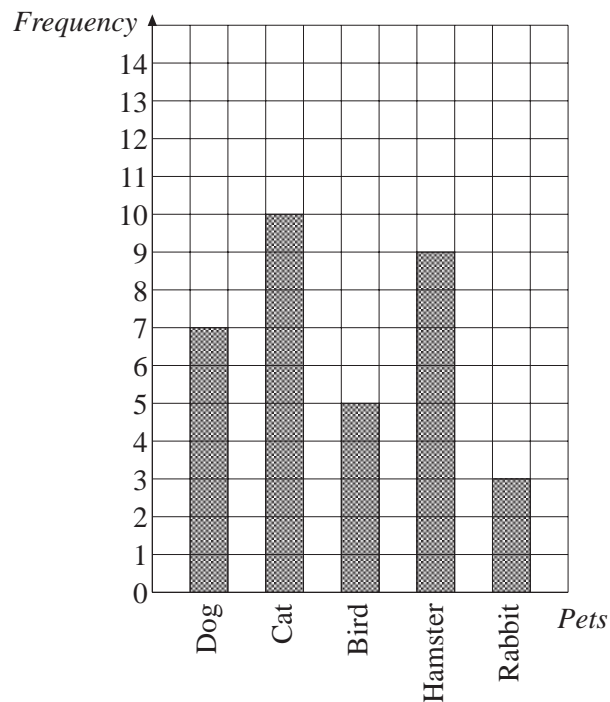
6. How many homes had no low energy light bulbs? (10)
7. How many homes had 3 low energy light bulbs? (2)
8. How many homes had 4 or more low energy light bulbs? (13)
9. How many homes had 1 or 0 low energy light bulbs? (16)
10. How many homes were included in the survey? (36)

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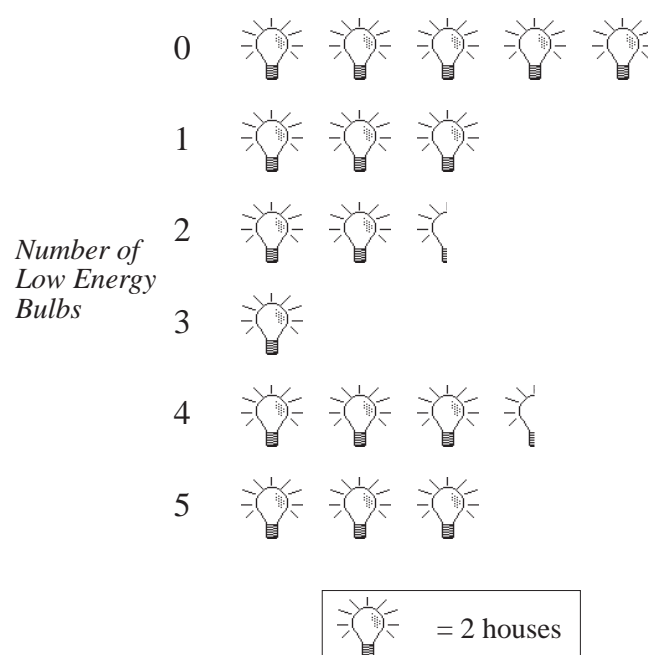
## Mental Tests

### Statistical Diagrams B

*Pets Owned by Pupils in Class 7B*



*Results of Survey Into the Use of Low Energy Light Bulbs*



## UNIT 11 Data Collection and Presentation

## Mental Tests

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### M11.3 Academic/Express Route *(no calculator)*

*Pupils will need a copy of Statistical Diagrams A*

*Questions 1 to 5 refer to the Bar Chart on Statistical Diagrams A.*

1. How many people owned a silver car? (5)
2. How many people were included in the survey? (32)
3. How many people owned a car that was red, blue or green? (18)
4. How many people owned a car that was *not* silver? (27)
5. How many more people owned white cars than owned green ones? (5)

*Questions 7 to 10 refer to the Pie Chart on Statistical Diagrams A.*

6. What fraction of the people chose baked potatoes? ( $\frac{1}{4}$ )
7. If 14 people chose chips, how many people took part in the survey? (28)
8. If 12 people took part in the survey, how many chose
  - (a) baked potatoes, (3)
  - (b) rice, (2)
  - (c) pasta? (1)

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### M11.4 Academic/Express Route *(no calculator)*

*Pupils will need a copy of Statistical Diagrams B*

*Questions 1 to 5 refer to the Bar Chart on Statistical Diagrams B.*

1. How many pupils owned hamsters? (9)
2. If 2 pupils owned a cat *and* a dog, how many pupils owned:
  - (a) a dog but not a cat, (5)
  - (b) a cat but not a dog? (8)
3. What is the total number of pets represented in the bar chart? (34)
4. All the pupils owned either 1 pet or 2 pets. If there were 30 pupils in the class, how many owned 2 pets? (4)

*Questions 5 to 9 refer to the Pictogram on Statistical Diagrams B.*

5. How many homes had 4 low energy light bulbs? (7)
6. How many homes took part in the survey? (36)
7. How many homes had less than 4 low energy light bulbs? (23)
8. How many homes had at least 1 low energy light bulb? (26)
9. What fraction of the homes in the survey did not have any low energy light bulbs?  
Give your answer in the simplest possible form. ( $\frac{5}{18}$ )