# Graph and charts

Children were asked to state how many pets they own. Answer Q1-Q3 using this tally chart.

| Number of pets | Tally | Frequency |
|---|---|---|
| 0 | ||| | 3 |
| 1 | ⊪⊪ || | X |
| 2 | ⊪⊪ |||| | Y |
| 3 | ⊪⊪ ⊪⊪ ⊪⊪ | | Z |
| 4 | |||| | 4 |
| More than 4 | ⊪⊪ | | 6 |

1. From the tally chart, what are the values of x, y and z?   _____

2. How many children took part in the survey?   _____

3. How many of the children own fewer than two pets?   _____

4. How many of the children own more than one pet?   _____

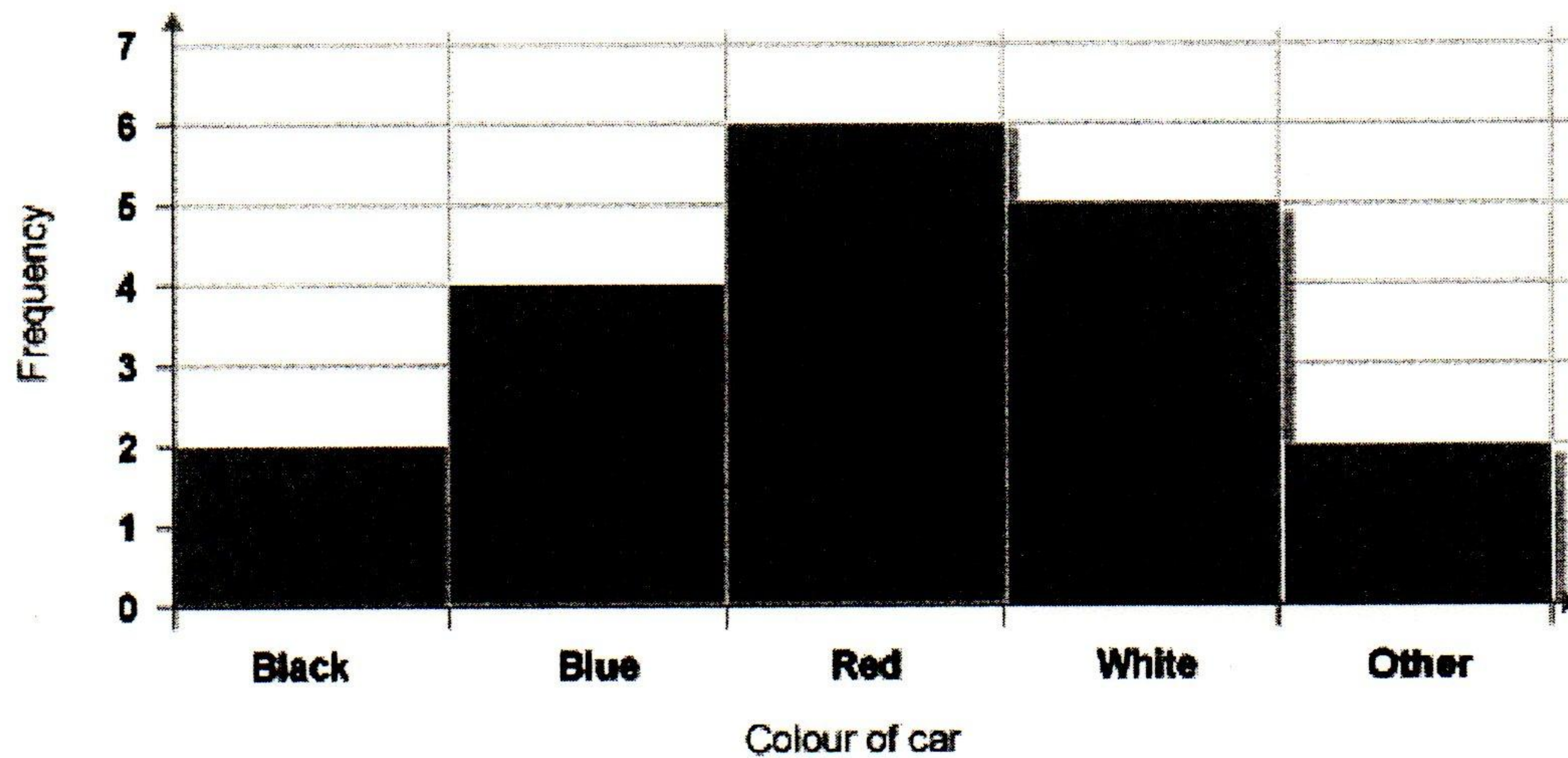This two-way table shows the ages of people on a bus. Answer Q4-Q8 using this table.

|  | 0-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | >79 |
|---|---|---|---|---|---|---|---|---|
| Male | 3 | 1 | 5 | 2 | 0 | 2 | 1 | 0 |
| Female | 2 | 2 | 7 | 1 | 3 | 4 | 0 | 1 |

5. How many people on the bus are aged 30-39?   _____
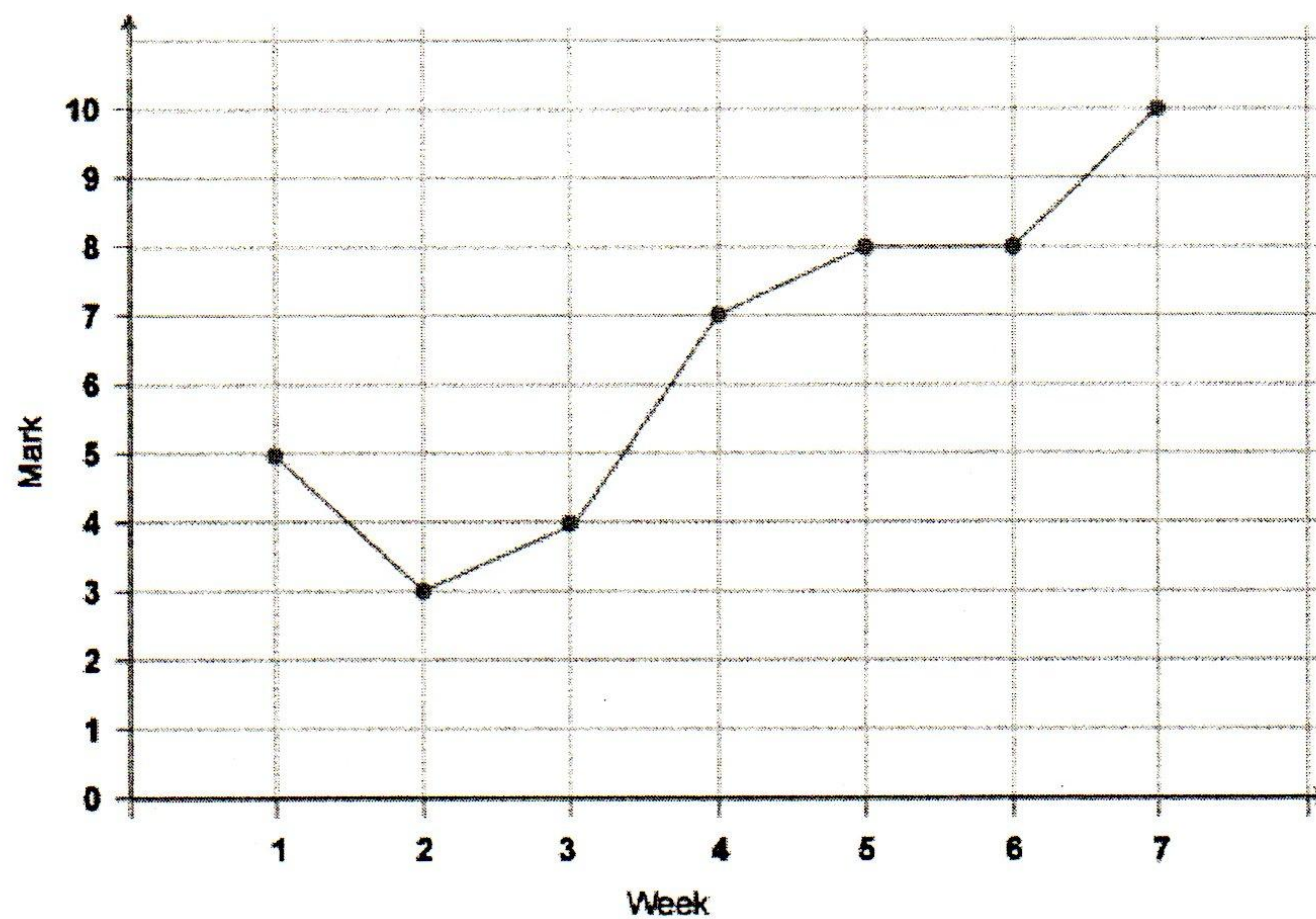
6. How many people on the bus are less than 20? _____

7. How many females are on the bus? _____

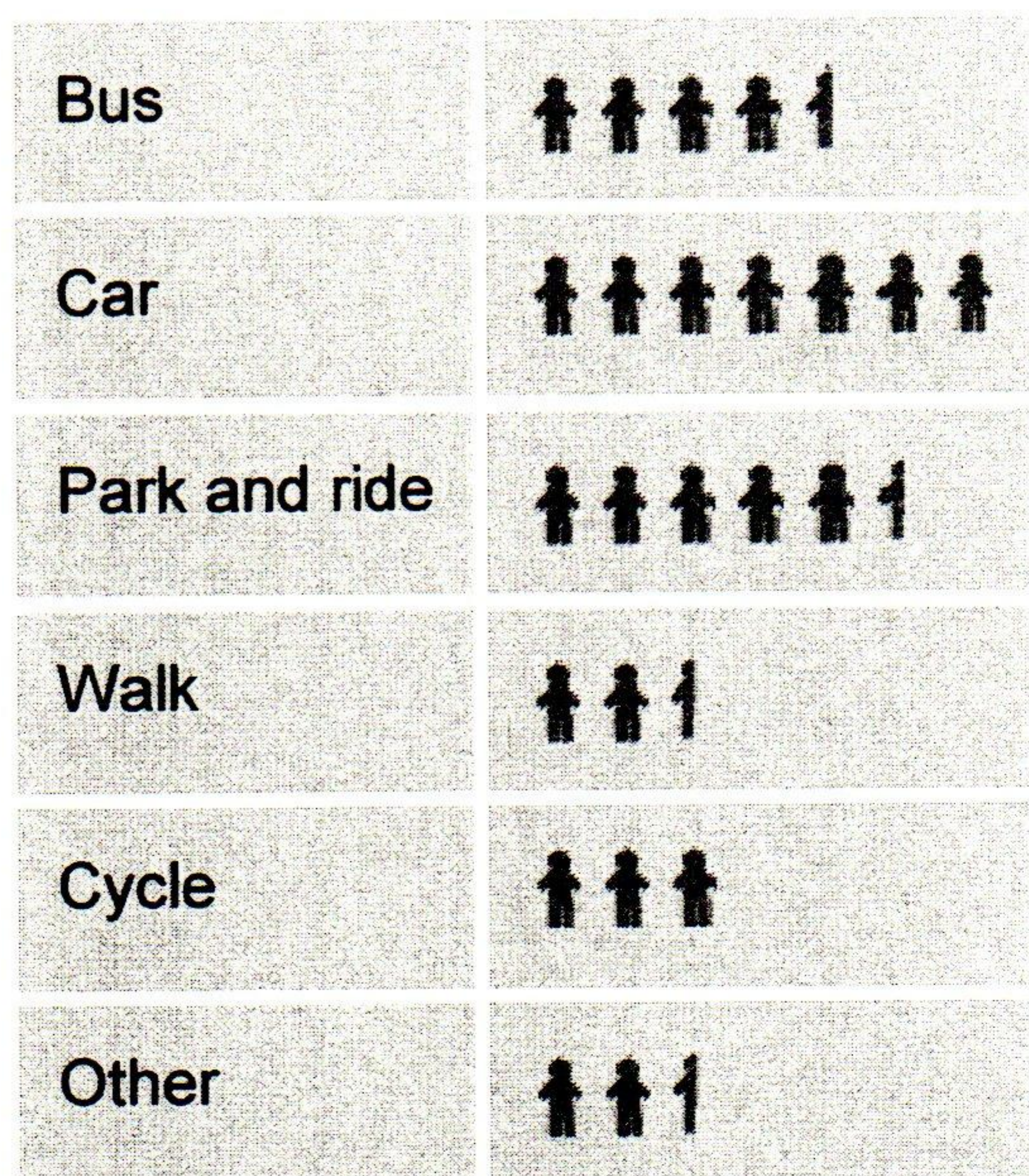8. Lisa conducted a survey of the cars passing her house. How many cars passed in total?



Colour of car

9. How many of the cars were white? _____

10. How many more white cars passed then black cars? _____



Week

11. The line graph shows Julie's French test results over half a term. Which week was Julie's mark the same as the previous week's?

_____

12. In which week was Julie's mark lower than the previous week's mark?

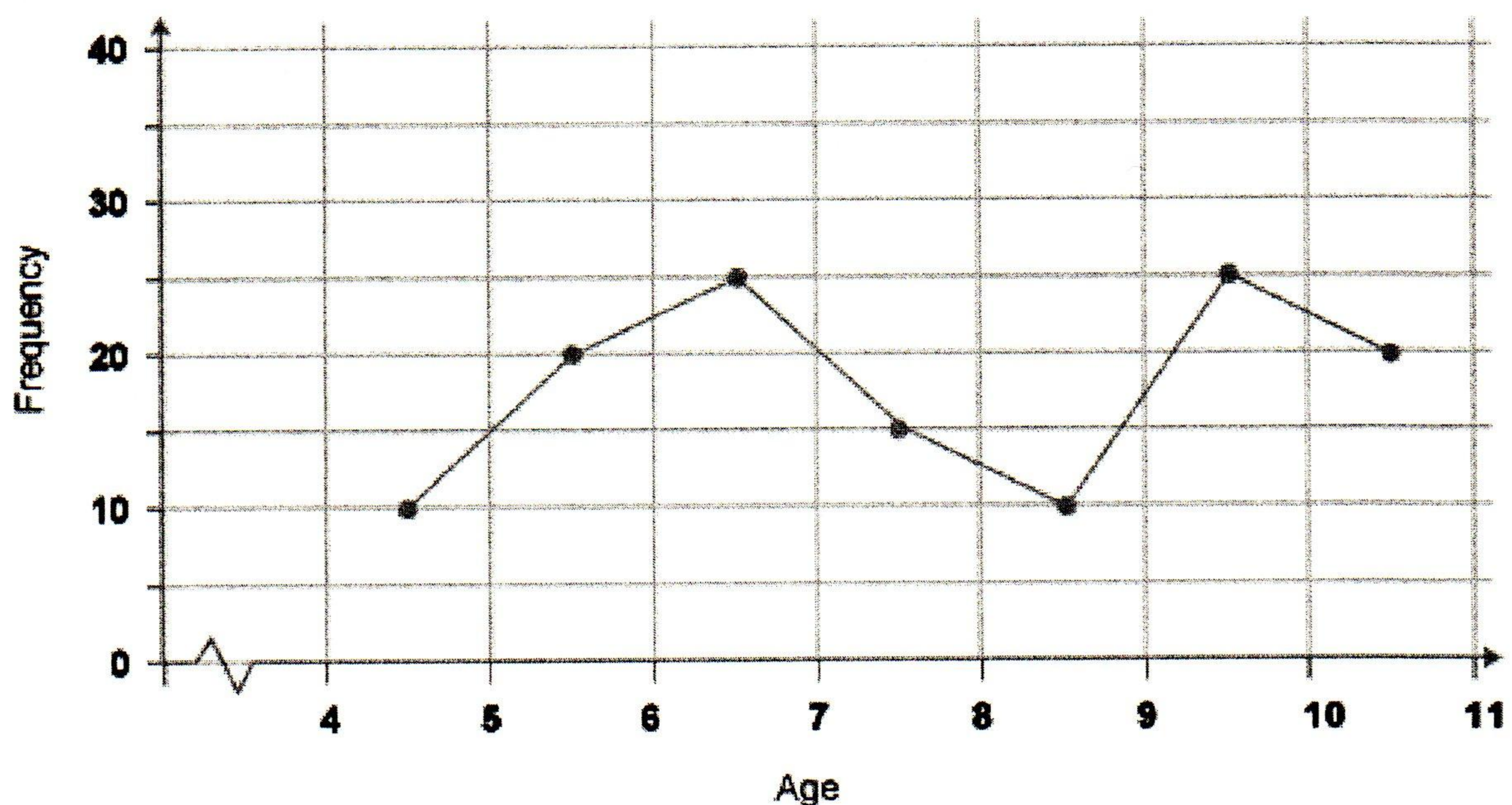| Bus | 🚶🚶🚶🚶🚶 |
| Car | 🚶🚶🚶🚶🚶🚶 |
| Park and ride | 🚶🚶🚶🚶🚶🚶 |
| Walk | 🚶🚶🚶 |
| Cycle | 🚶🚶🚶 |
| Other | 🚶🚶🚶 |

13. 50 people are asked how they travelled to work. From the pictogram, how many people does the figure in the key represent?    _____

14. What was the most popular method of transport to work? _____

15. How many people used the Park and Ride service?    _____

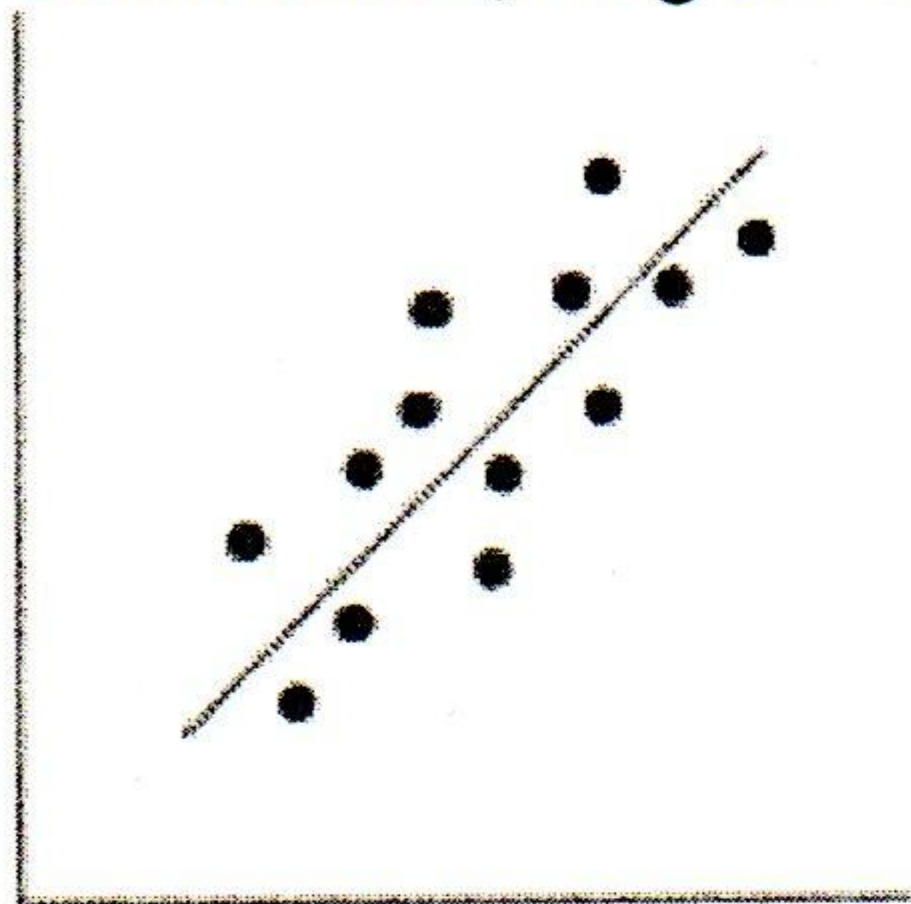16. How many more people like car and bus then cycle?    _____



Age

17. This frequency polygon shows the ages of children in a small primary school. How many are aged between 7 and 8 years?    _____
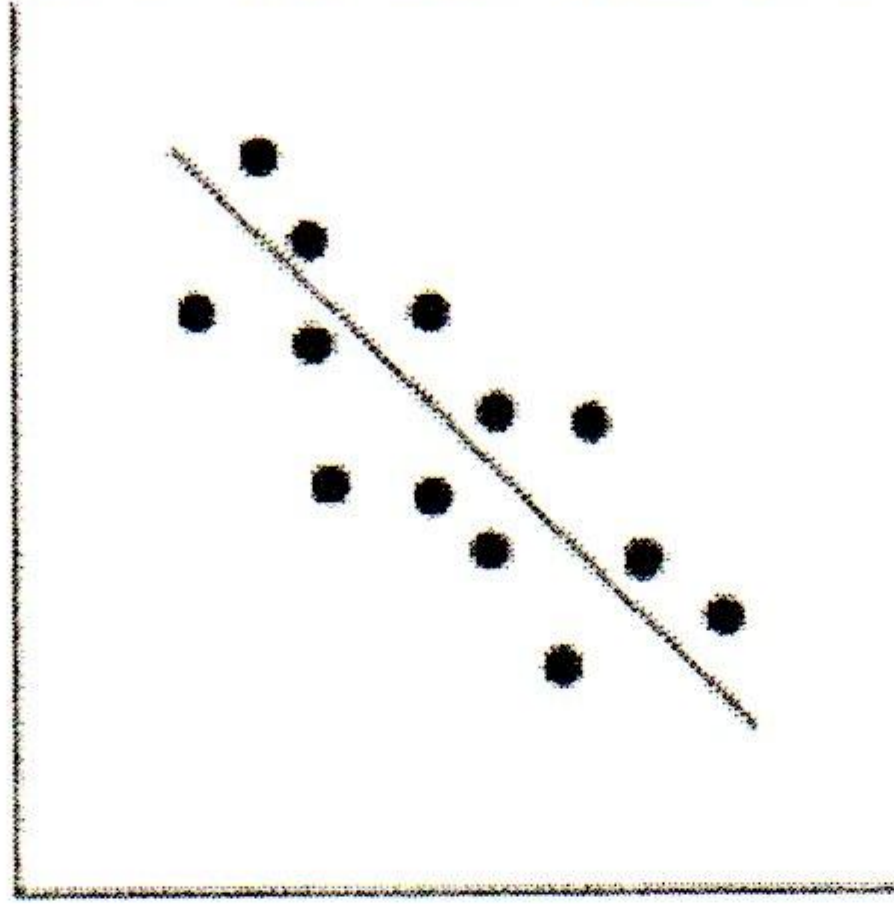
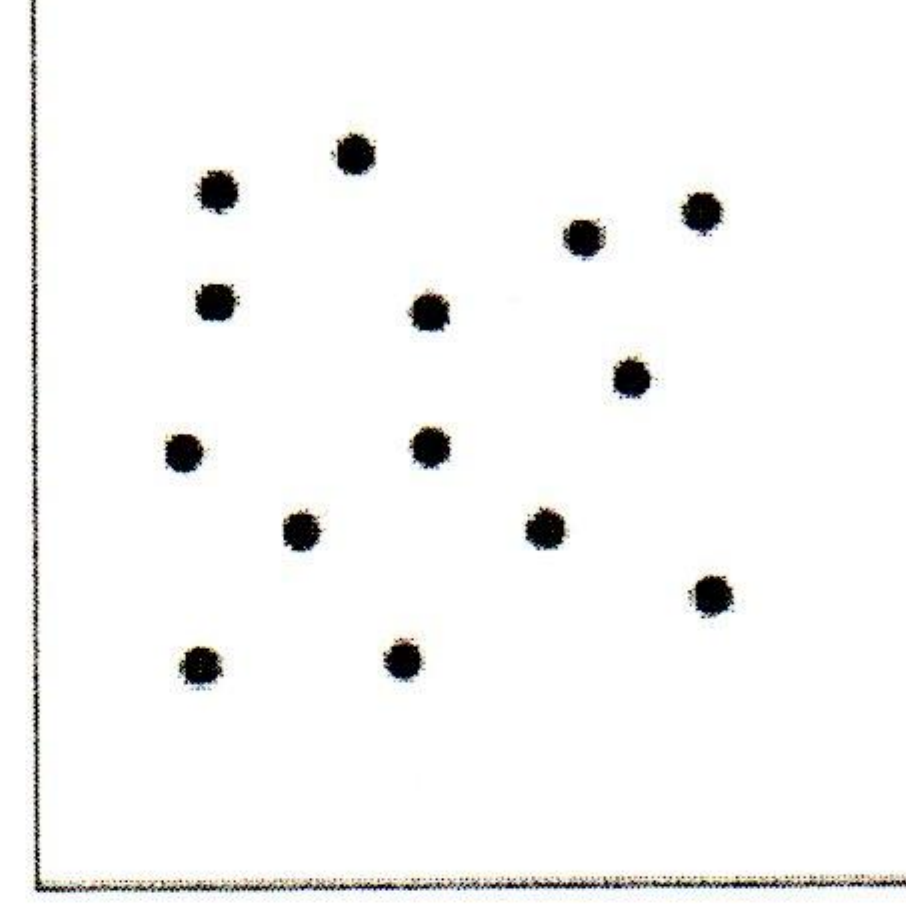18. How many of the children are over 8 years of age?    _____

**Correlation:** Correlation means relation between X-axis and Y-axis over the points. Good correlation means points form a quite nice line. It means the two things are closely related to each other. Poor correlation means the points are all over the place.

- Positive correlation means line sloping **uphill** from left to right.

Negative correlation means line sloping **downhill** left to right.

Q.19 In the following question write the type of correlation whether positive correlation, negative correlation or no correlation.
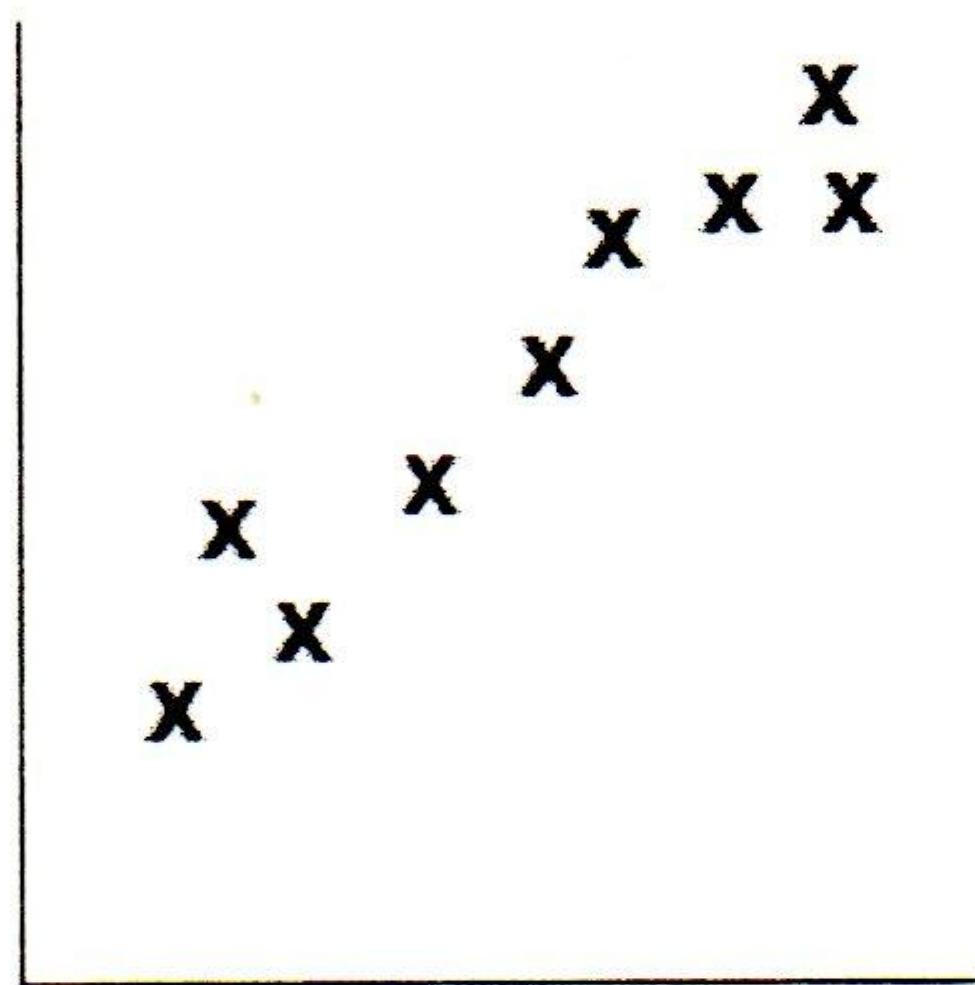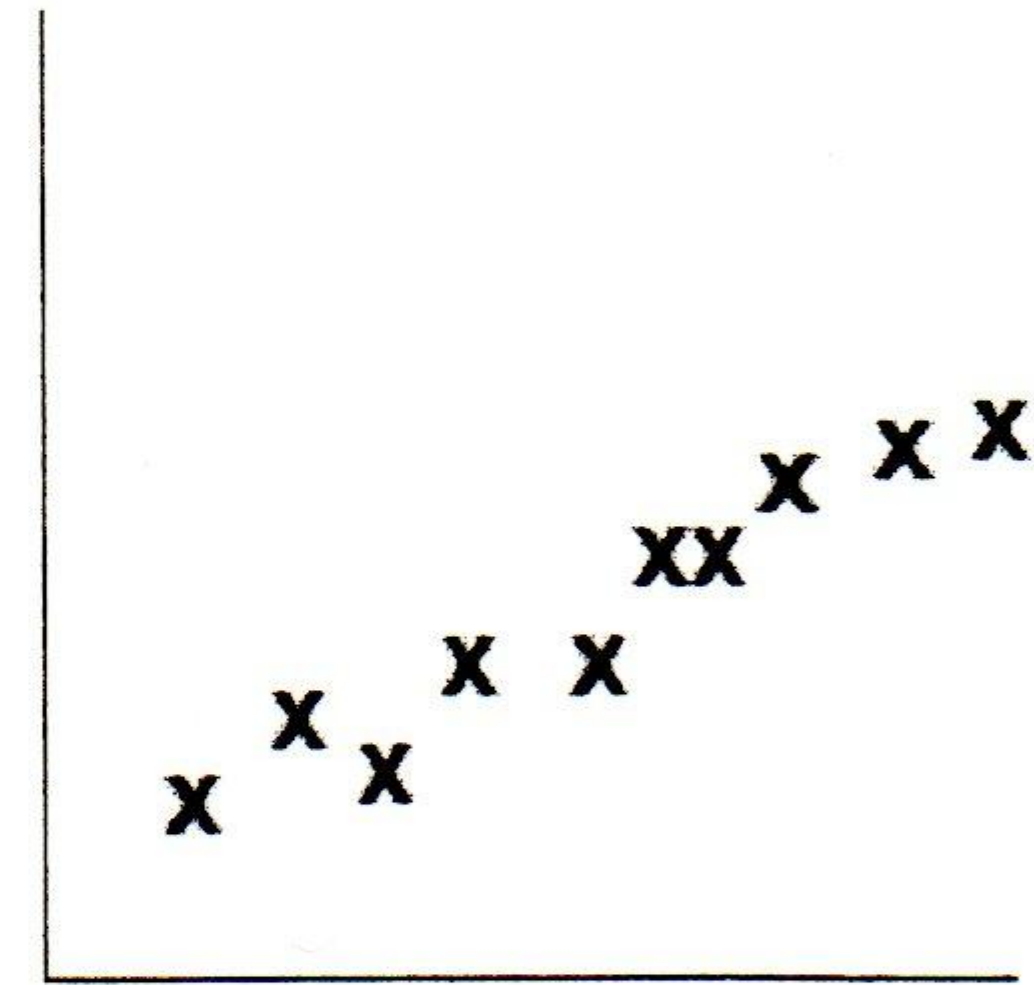
_____      _____      _____

**20** Describe the type of correlation for the following scatter graphs.

(iii)

(iv)

_____      _____

**21** The table below shows the marks of pupils in two mathematics tests.

| Paper 1 | 44 | 24 | 40 | 48 | 30 | 25 | 10 | 37 | 38 | 34 |
| Paper 2 | 43 | 28 | 38 | 42 | 32 | 30 | 25 | 35 | 40 | 37 |

(i) Use the data to plot a scatter graph. Let Paper 1 be the horizontal axis (x) and Paper 2 be the vertical axis (y).

(ii) Describe the correlation.                    _____

(iii) Work out the mean for Paper 1 and for Paper 2 and use this to help you draw a line of best fit on your scatter graph.

(iv) A girl was absent for Paper 2. She scored 32 marks on Paper 1. Use your graph to estimate her mark for Paper 2.

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