Data Handling & Probability: Medium Practice Paper 8

Q1. The two-way table shows the pets owned by two year groups. How many Year 5 pupils own a cat?

	Dog	Cat	Total
Year 4	14	10	24
Year 5	11	15	26
Total	25	25	50

A. 10 *B.* 11 *C.* 14 *D.* 15 *E.* 26

Q2. Use the same table of pets. What fraction of all the pupils own a dog?

	Dog	Cat	Total
Year 4	14	10	24
Year 5	11	15	26
Total	25	25	50

A. 7/25 *B.* 11/50 *C.* 12/25 *D.* 1/2 *E.* 14/25

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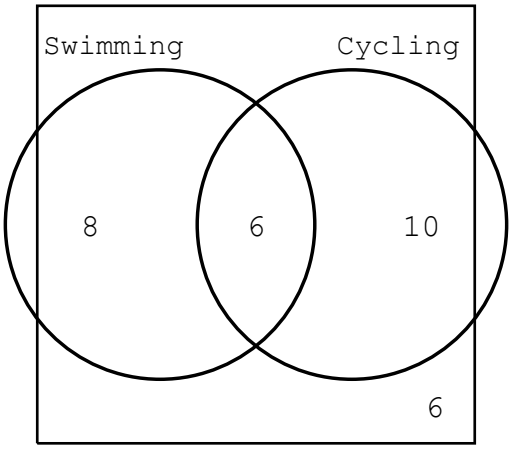
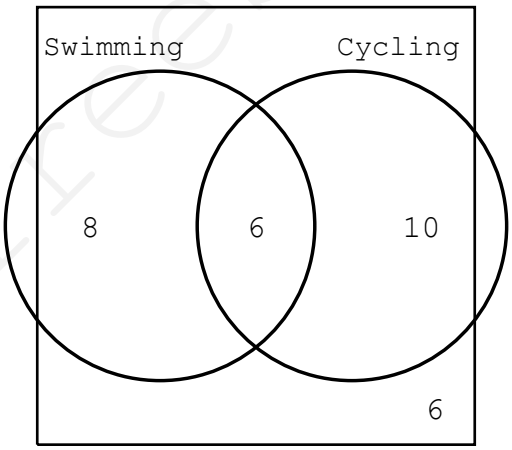
Q3. The Venn diagram shows the activities pupils do. How many pupils do exactly one of the two activities?



A. 14 *B.* 16 *C.* 18 *D.* 24 *E.* 30

Q4. Use the same Venn diagram. What fraction of the pupils cycle?



A. 1/5 *B.* 1/3 *C.* 8/15 *D.* 3/5 *E.* 8/30

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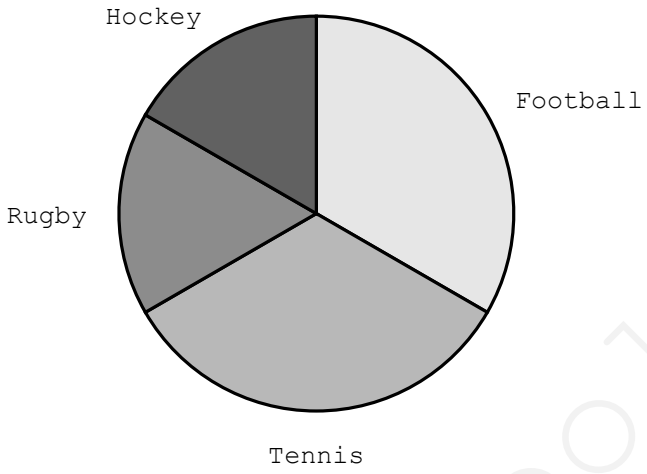
Q5. The pie chart shows the favourite sport of 180 people. The football sector has an angle of 120°. How many people chose football?



A. 30 *B.* 45 *C.* 60 *D.* 90 *E.* 120

Q6. Two schools drew pie charts of favourite colours. In School A, which asked 200 pupils, the blue sector is a quarter of the circle. In School B, which asked 400 pupils, the blue sector is also a quarter. Which statement is true?

A. The same number chose blue in each school

B. Twice as many chose blue in School B

C. Twice as many chose blue in School A

D. Four times as many chose blue in School B

E. It cannot be worked out from pie charts

Q7. The table groups the marks of 30 pupils in a test. Which group contains the median mark?

Mark	**0-9**	**10-19**	**20-29**	**30-39**	**40-49**
Pupils	3	7	10	6	4

A. 0-9 *B.* 10-19 *C.* 20-29 *D.* 30-39 *E.* 40-49

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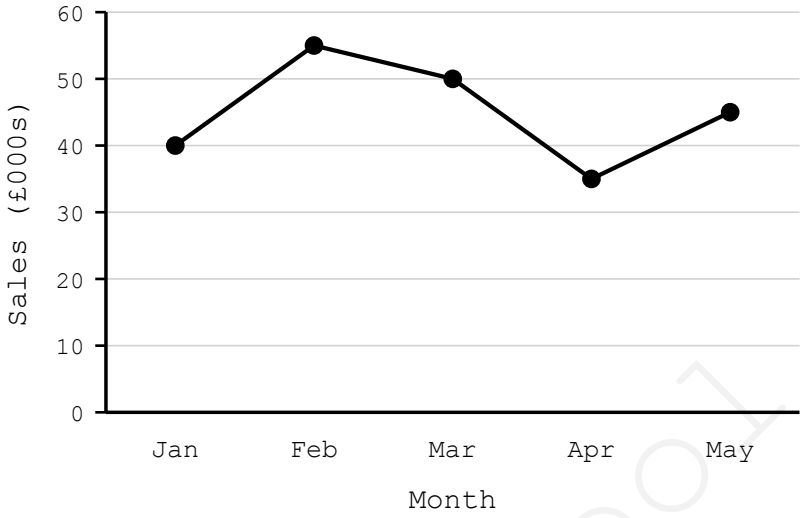
Q8. The line graph shows a shop's sales each month. Between which two months did the sales fall the most?



A. January and February

B. February and March

C. March and April

D. April and May

E. January and May

Q9. The table shows how many pets each pupil in a class of 20 owns. What is the mean number of pets per pupil?

Pets owned	**0**	**1**	**2**	**3**
Number of pupils	4	8	6	2

A. 1 *B.* 1.3 *C.* 1.5 *D.* 2 *E.* 2.6

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Q10. Use the same table of pets. What is the modal number of pets owned?

Pets owned	**0**	**1**	**2**	**3**
Number of pupils	4	8	6	2

A. 0 *B.* 1 *C.* 2 *D.* 3 *E.* 8

Q11. The mean number of books read by each pupil in a class of 25 is 2. How many books did the class read altogether?

A. 25 *B.* 27 *C.* 50 *D.* 52 *E.* 75

Q12. Sam wants to find the mean height of all the pupils in his school. He measures only the members of the Year 6 basketball team. Why is this not a good way to do it?

A. Basketball players tend to be taller, and no younger pupils are included

B. He should have measured them twice each

C. Height cannot be measured accurately

D. He should have used the median instead

E. There are too many pupils in the school

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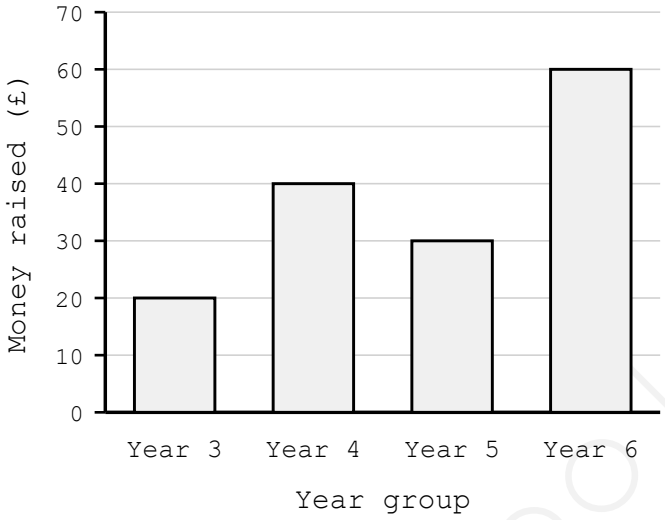
Q13. The bar chart shows the money each year group raised for charity. What percentage of the total was raised by Year 6?



A. 20% *B.* 30% *C.* 40% *D.* 50% *E.* 60%

Q14. A shoe shop wants to know which size to stock the most of. Which average is the most useful to the shop?

A. The mean

B. The median

C. The range

D. It makes no difference which is used

E. The mode

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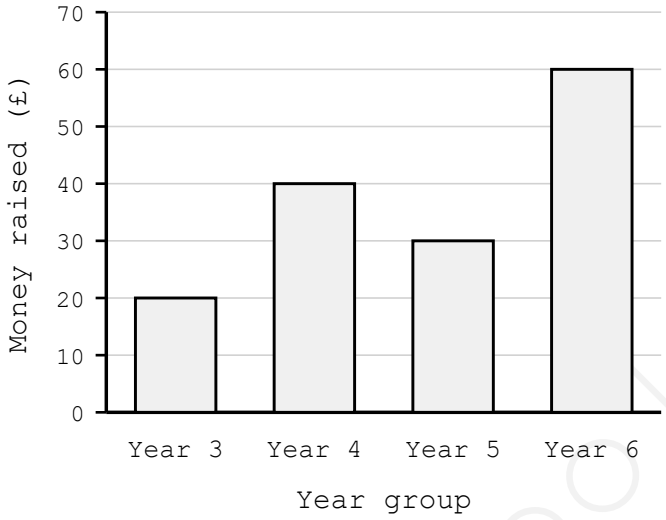
Q15. Use the same charity bar chart. Which of these statements is definitely true?



A. Year 6 raised more than Year 3 and Year 5 put together

B. Year 4 raised twice as much as Year 5

C. Every year group raised more than £25

D. The four year groups raised £200 altogether

E. Year 5 raised the least

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