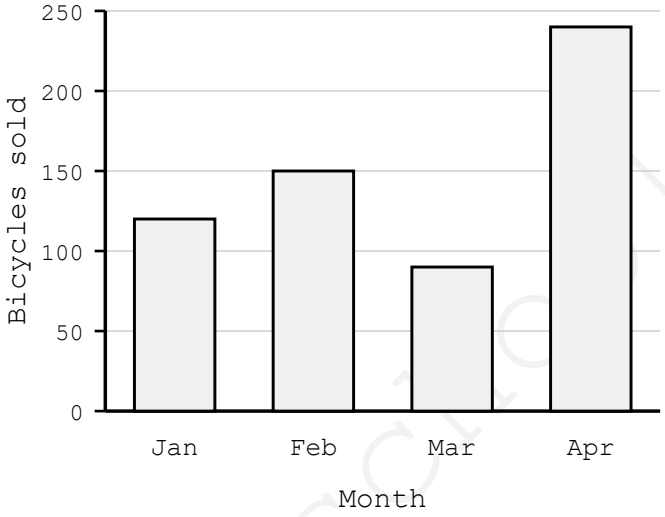
# Data Handling & Probability: Hard Practice Paper 2

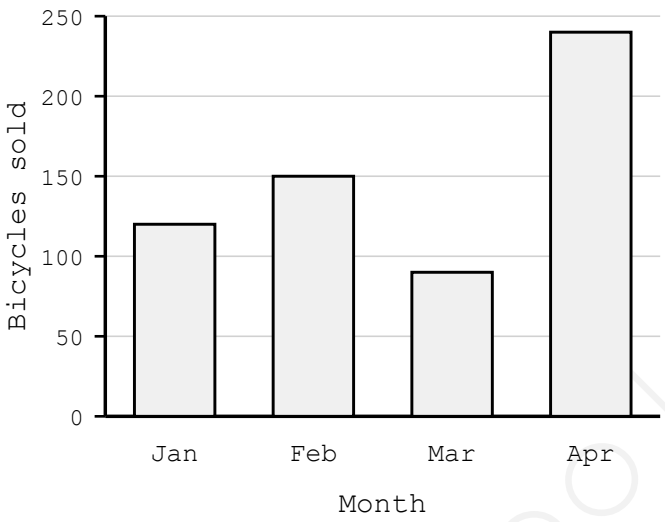
Q1. The bar chart shows the bicycles a shop sold in the first four months of the year. What percentage of these sales happened in February?




A. 20%  B. 25%  C. 30%  D. 35%  E. 40%

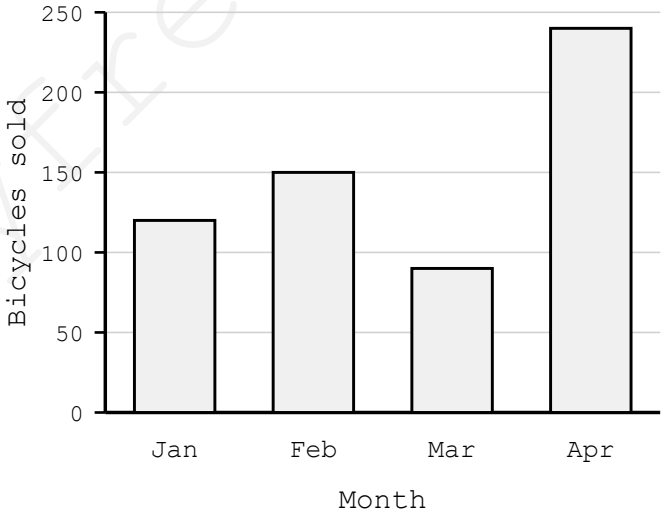
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Q2. Use the bar chart. What is the mean number of bicycles sold per month?




A. 120 B. 135 C. 140 D. 150 E. 165

Q3. Use the bar chart. In May the shop sold 25% more bicycles than in April. How many did it sell in May?




A. 240 B. 260 C. 270 D. 280 E. 300

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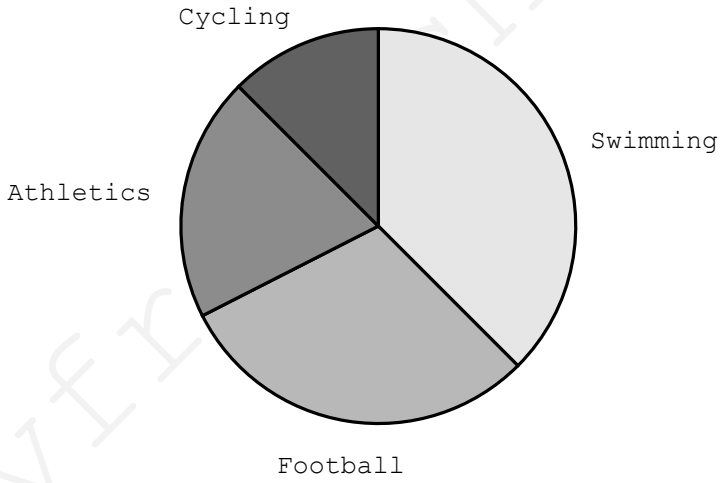
Q4. A bag holds 4 green counters and 6 yellow counters. Two counters are taken out, one after the other, without being put back. What is the probability that both are green?

A. 2/15 B. 4/25 C. 1/6 D. 1/5 E. 4/15

Q5. The mean age of five children is 9 years. A child aged 15 then joins the group. What is the mean age of the six children?

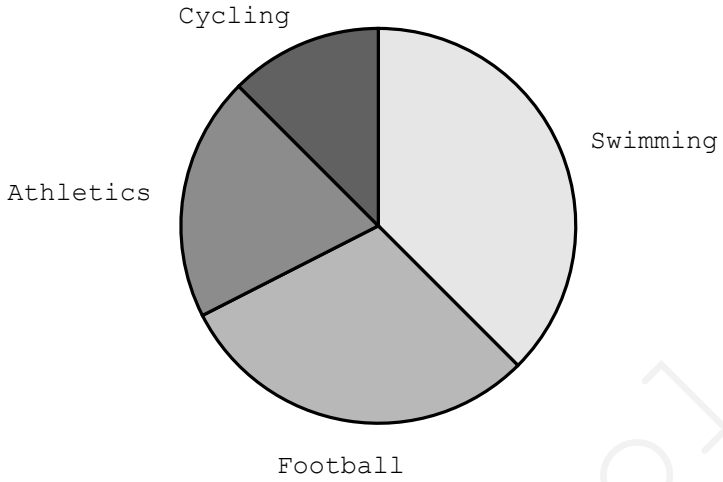
A. 9.5 B. 10 C. 10.5 D. 11 E. 12

Q6. The pie chart shows the sport chosen by 240 pupils. Three eighths of them chose swimming. How many pupils chose swimming?




A. 90 B. 96 C. 100 D. 120 E. 135

Q7. Use the same pie chart of 240 pupils. The football sector has an angle of 108°. How many pupils chose football?




A. 48 B. 60 C. 72 D. 84 E. 90

Q8. Five houses in a street sold for these amounts, in thousands of pounds.

4, 5, 5, 6, 40

How much bigger is the mean than the median?

A. 3 B. 4 C. 5 D. 6 E. 7

Q9. The two-way table shows what pupils ate at lunchtime, but one number is missing. How many Year 5 pupils had a school dinner?

| Pupils | Packed lunch | School dinner | Total |
|---|---|---|---|
| Year 5 | 14 | ? | 30 |
| Year 6 | 12 | 16 | 28 |
| Total | 26 | 32 | 58 |

A. 12 B. 14 C. 16 D. 18 E. 20

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Q10. Use the two-way table. One of the 58 pupils is chosen at random. What is the probability that the pupil is in Year 6 and had a packed lunch?

| Pupils | Packed lunch | School dinner | Total |
|---|---|---|---|
| Year 5 | 14 | ? | 30 |
| Year 6 | 12 | 16 | 28 |
| Total | 26 | 32 | 58 |

A. 3/29 B. 6/29 C. 1/4 D. 8/29 E. 1/2

Q11. A class of 30 pupils has a mean height of 142 cm. The 12 boys have a mean height of 145 cm. What is the mean height of the 18 girls?

A. 136 cm B. 138 cm C. 139 cm D. 140 cm E. 142 cm

Q12. Two fair six-sided dice are rolled and their scores are added together. What is the probability that the total is 10?

A. 1/36 B. 1/18 C. 1/12 D. 1/9 E. 1/6

Q13. The table shows the shoe sizes of the 26 pupils in a class. What is the median shoe size?

| Shoe size | Number of pupils |
|---|---|
| 3 | 4 |
| 4 | 7 |
| 5 | 8 |
| 6 | 5 |
| 7 | 2 |

A. 3 B. 3.5 C. 4 D. 4.5 E. 5

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Q14. In a survey of 50 people, 30 read the news online and 24 read a newspaper. 10 people do both. How many people do neither?

A. 2 B. 4 C. 5 D. 6 E. 8

Q15. A dice was rolled 150 times and landed on a 6 exactly 40 times. How many more 6s were rolled than a fair dice would be expected to give?

A. 15 B. 20 C. 25 D. 30 E. 40

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