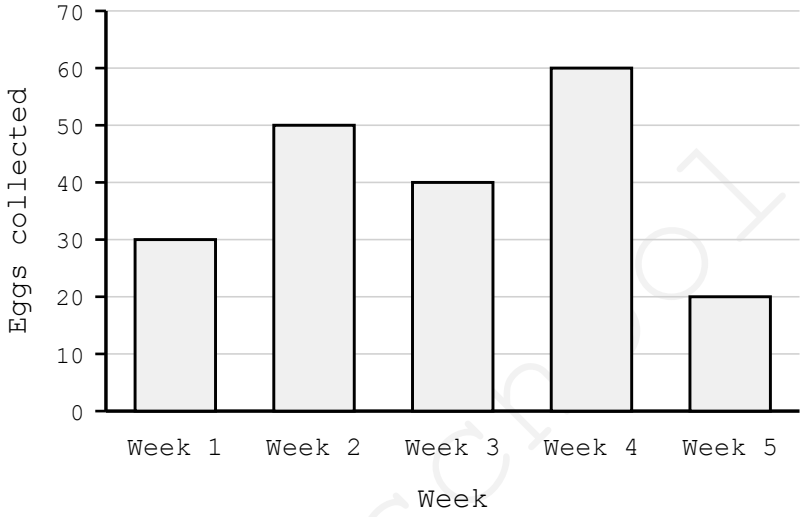
Data Handling & Probability: Hard Practice Paper 6

Q1. The bar chart shows the number of eggs collected on a farm each week. What is the mean number of eggs collected per week?



A. 30 *B.* 40 *C.* 45 *D.* 50 *E.* 200

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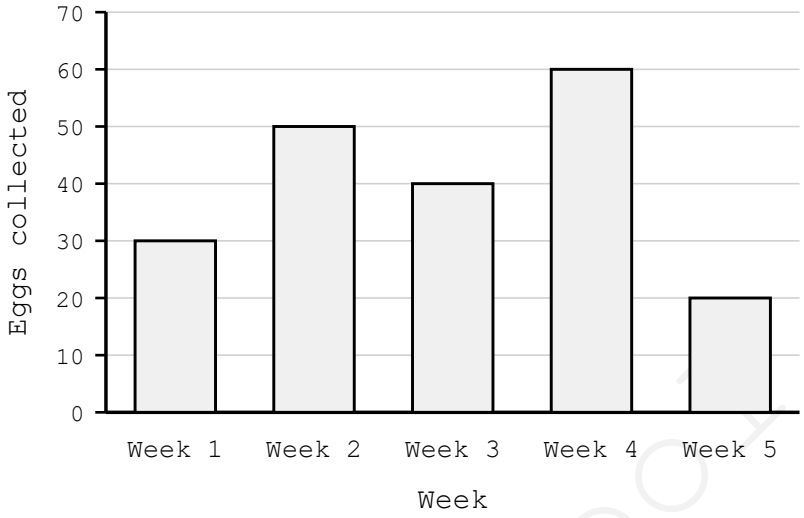
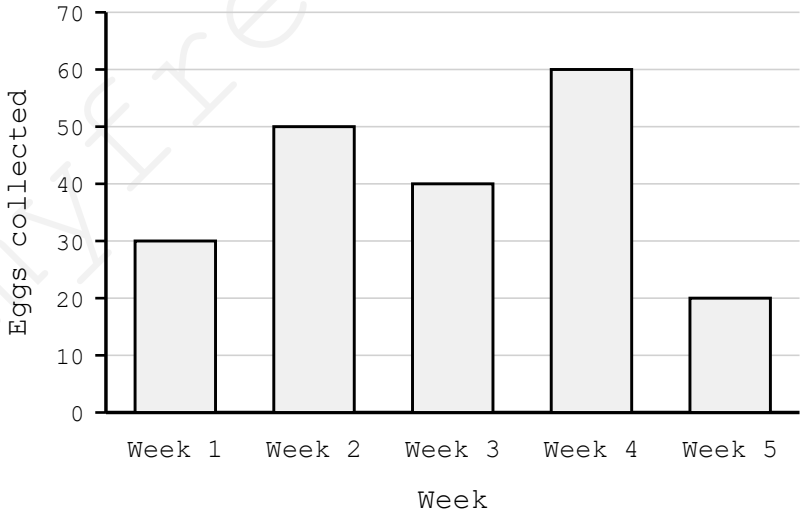
Q2. Use the same egg chart. What percentage of all the eggs was collected in Week 4?



A. 15% *B.* 20% *C.* 25% *D.* 30% *E.* 60%

Q3. Use the same egg chart. In Week 6 the farm collected 20% more eggs than in Week 4. How many eggs was that?



A. 66 *B.* 70 *C.* 72 *D.* 75 *E.* 80

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Q4. In a test the mean mark of the 15 boys was 58 and the mean mark of the 10 girls was 68. What was the mean mark of the whole class of 25?

A. 60 *B.* 62 *C.* 63 *D.* 64 *E.* 65

Q5. The mean of eight numbers is 14. One of the numbers, 9, is crossed out and replaced by 25. What is the new mean?

A. 14 *B.* 15 *C.* 16 *D.* 17 *E.* 18

Q6. Five numbers have a median of 10 and a range of 12. The largest of the five numbers is 18. What is the smallest?

A. 4 *B.* 5 *C.* 6 *D.* 8 *E.* 10

Q7. The table shows the goals a team scored in 20 matches, but one figure has been lost. How many matches ended with exactly 1 goal?

Goals scored	**0**	**1**	**2**	**3**
Number of matches	6	?	6	3

A. 3 *B.* 4 *C.* 5 *D.* 6 *E.* 9

Q8. Use the same table of goals, now that the missing figure is known. What is the mean number of goals per match?

Goals scored	**0**	**1**	**2**	**3**
Number of matches	6	5	6	3

A. 1.2 *B.* 1.3 *C.* 1.5 *D.* 1.75 *E.* 2

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Q9. Five houses in a street sold for £150,000, £155,000, £160,000, £165,000 and £900,000. Which average best describes a typical price in that street?

A. The median, because one huge price pulls the mean up

B. The mean, because it uses every price

C. The mode, because it is the most common

D. The range, because it shows the spread

E. The mean, because it is always the fairest

Q10. A class of 30 pupils has a mean height of 140 cm. The 18 girls have a mean height of 138 cm. What is the mean height of the 12 boys?

A. 139 cm *B.* 141 cm *C.* 142 cm *D.* 143 cm *E.* 145 cm

Q11. The mean of six numbers is 11. What number must be added to the list so that the mean of the seven numbers is 12?

A. 12 *B.* 13 *C.* 15 *D.* 18 *E.* 20

Q12. Four numbers have a mean of 9. Every one of the numbers is then doubled. What is the mean of the new set?

A. 9 *B.* 11 *C.* 13 *D.* 18 *E.* 36

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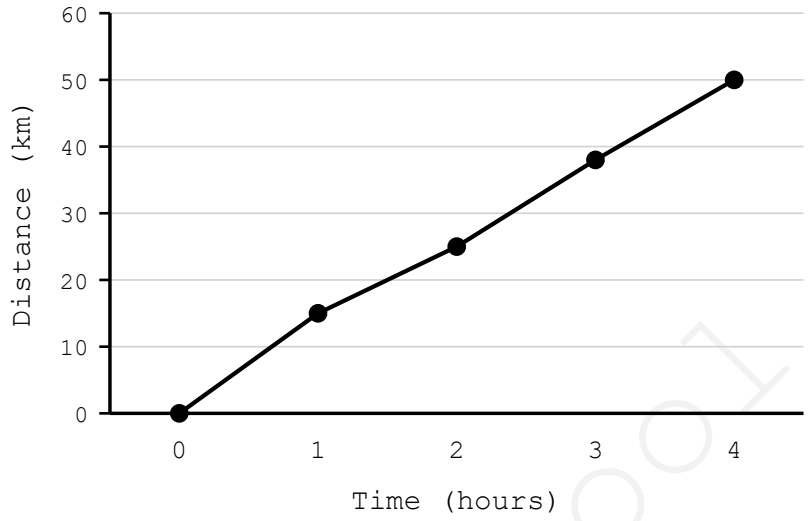
Q13. The line graph shows how far a cyclist had travelled during an afternoon. What was her average speed over the whole four hours?



A. 10 km/h *B.* 12.5 km/h *C.* 13 km/h *D.* 15 km/h *E.* 50 km/h

Q14. Set A has a range of 12 and Set B has a range of 8. The two sets are put together into one list. What is the range of the combined list?

A. 4

B. 10

C. 12

D. 20

E. It cannot be worked out from this information

Q15. Four numbers have a mean of 8 and a range of 6. Three of the numbers are 5, 8 and 11. What is the fourth number?

A. 4 *B.* 6 *C.* 8 *D.* 9 *E.* 12

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