

- Q1.** There are 15 bags of apples on a market stall.
The mean number of apples in each bag is 9

The table below shows the numbers of apples in **14** of the bags.

Number of apples	Frequency
7	2
8	3
9	3
10	4
11	2

Calculate the number of apples in the 15th bag.

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(Total 3 marks)

- Q2.** A book has 120 pages.

The mean number of words per page for the whole book is 231.
The mean number of words per page for the first 20 pages is 236.

Calculate the mean number of words per page for the other 100 pages.

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(Total 3 marks)

M1.

Working	Answer	Mark	Additional Guidance
$15 \times 9 = 135$ $(7 \times 2) + (8 \times 3) + (9 \times 3) + (10 \times 4) + (11 \times 2) = 127$ $135 - 127$	8	3	M1 for 15×9 or 135 seen M1 $(7 \times 2) + (8 \times 3) + (9 \times 3) + (10 \times 4) + (11 \times 2)$ or 127 seen A1 8 cao
Total for Question: 3 marks			

M2.

Working	Answer	Mark	Additional Guidance
$(120 \times 231 - 20 \times 236) \div 100$	230	3	M1 for 120×231 or 20×236 or 27720 or 4720 seen M1 for $(120 \times 231 - 20 \times 236) \div 100$ oe A1 cao
Total for Question: 3 marks			

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This question was not very well answered with candidates showing a lack of understanding of what was being asked. Many candidates calculated the sum of fx as 127 scoring M1 but then divided this answer by 14 or 15 and rounded their answer. Unfortunately a few found the values of fx but then did not find the total of these and so scored M0.

The working of $15 \times 9 (=135)$ was rarely seen and the difference between 135 and 127 was even less frequent. Some candidates used trial and improvement methods by adding numbers on to '127' until they arrived at the correct answer, or by adding extra values into the table and then calculating the different means. Some of these methods appeared time consuming.