JRA Tutors
Private tuition and small online Study Pods

Averages

Grade 2 topic · Foundation and Higher · Edexcel and AQA

How to use this pack
20 questions that get harder as you go. Foundation students: aim for Questions 1–15 (34 marks) and have a go at the rest. Higher students: complete all 20. Show your working on the lines and write your final answer on the answer line, then mark yourself with the answers at the back. Diagrams are not drawn accurately. Total: 54 marks.

Warm-up

1 Work out the mean of 2, 4, 11, 16, 7. **[1 mark]**

Answer _____

2 Find the median of 15, 8, 13, 3, 21. **[1 mark]**

Answer _____

3 Find the mode of 12, 3, 6, 11, 3, 3, 1. **[1 mark]**

Answer _____

4 Work out the range of 28, 31, 2, 33, 36, 32. **[1 mark]**

Answer _____

5 Work out the mean of 15, 9, 8, 20. **[1 mark]**

Answer _____

Core

6 Find the median of 10, 28, 8, 19, 27, 2. **[2 marks]**

Answer _____

7 Work out the mean of 5, 16, 4, 13, 8, 8. **[2 marks]**

Answer _____

8 Find (a) the mode and (b) the range of 8, 2, 2, 6, 8, 5, 5, 8. **[2 marks]**

Answer _____

9 Find the median of 21, 25, 13, 23, 12, 19, 32, 36. **[2 marks]**

Answer _____

10 The mean of five numbers is 13. Four of the numbers are 12, 6, 10, 4. Work out the fifth number. **[3 marks]**

Answer _____

Stretch

11 The mean of four numbers is 8. A fifth number is added and the mean becomes 9. Work out the fifth number. **[3 marks]**

Answer _____

12 8 boys have a mean height of 150 cm and 12 girls have a mean height of 161 cm. Work out the mean height of all 20 students. **[4 marks]**

Answer _____

13 The mean of six numbers is 24. One of the numbers is removed and the mean of the remaining five numbers is 27. Work out the number that was removed. **[3 marks]**

Answer _____

14 Zara's mean score in 8 tests is 72. After her 9th test her mean score is 74. What did she score in the 9th test? **[4 marks]**

Answer _____

15 The table shows the number of pets owned by students. 0 pets: 4 students; 1 pet: 3; 2 pets: 9; 3 pets: 9. Work out the mean number of pets, to 2 decimal places. **[4 marks]**

Answer _____

Challenge

16 The mean of the numbers 3, x, 3x and 9 is 9. Work out the value of x. **[4 marks]**

Answer _____

17 The mean of the numbers 5, x, 3x and 11 is 7. Work out the value of x. **[4 marks]**

Answer _____

18 Class A has 12 students with a mean mark of 55. Class B has 8 students with a mean mark of 66. Work out the mean mark for all 20 students. **[4 marks]**

Answer _____

19 The mean of 10 numbers is 18. The mean of 4 of them is 15. Work out the mean of the other 6 numbers. **[4 marks]**

Answer _____

20 The mean of 9 numbers is 28. When one more number is added the mean increases by 2. What is the new number? **[4 marks]**

Answer _____