

Maths Homework Mr Johnson's Group

Set: 22-3-19 Due: 27-3-19

A new term our test has thrown up this week has been MEAN

DEFINITION: Mean – all of the values added together and then divided by the total number of values. E.g. if you were to find the mean of 2,3,4,5 and 6 you would add up the values $2+3+4+5+6=20$ and divide the answer by the number of values (5). So $20 \div 5 = 4$ So the mean is 4.

This is also a form of finding an average.

Here is some practice of going through that process.

Find the mean of the following sets of data:

(Add them all up and divide by how many there are)

- A. 8, 3, 52, 48, 7, 78
- B. 8, 9, 12, 15, 21, 22
- C. 24, 27, 21, 25, 28
- D. 150, 155, 157, 163, 170
- E. 2, 3, 5, 9, 14, 9, 6
- F. 10, 6, 11, 15, 25, 10, 5
- G. 24, 30, 10, 16, 32, 10, 0, 25
- H. 100, 200, 150, 125, 75, 200, 300

Mean Problems

- a) Jess thinks that the mean average of these numbers is 7. Do you agree or disagree with her? Show your reasoning. 5, 12, 8, 3, 2, 4, 1

What had Jess done incorrectly to get an answer of 7?
- b) Josie and her brothers and sisters measured their heights and found the mean average. The mean was 150cm. Josie forgot her height. Can you work out the missing height?
150cm, 170cm, 140cm, 155cm, _____
- c) Sarah is studying for her GCSEs and has a part-time job. By law, she can only work 16 hours a week over the course of a four week period. These are her total hours worked from the last four weeks: 17hrs, 25hrs, 8 hrs and 14hrs. Has she gone over the limit?
- d) 6, 2, 8, 10, 5, ____ Here as a set of five numbers with one missing. What would the last number need to be to give a mean of:
6? and 7?
- e) Timothy's average score on the first 4 tests was 76. On the next 5 tests his average score was 85. What was his average score on all 9 tests?
- f) Tracy mowed lawns for 2 hours and earned \$7.40 per hour. Then she washed windows for 3 hours and earned \$6.50 per hour. What were Tracy's average earnings per hour for all 5 hours?

Challenge:

- 1. Mr. Johnson drives 3 hours at an average speed of 40 miles per hour. Then he drives 2 hours at a speed of 35 miles per hour. What is his average speed for the whole trip?
- 2. Miss Lewis drives 4 hours at an average speed of 30 miles per hour. Then she drives 2 hours at a speed of 45 miles per hour. What is her average speed for the whole trip?