

Lesson 8

GCSE Mathematics

Statistics II : Handelling and Processing Data

8.1 Springer Spaniel Investigation (Homework)

The weights of 24 Springer Spaniels were measured (in kg) as follows;

15.1	17.9	16.6	15.3	17.3	16.2	17.0	14.2
14.7	15.8	16.2	17.7	17.8	16.9	15.1	15.8
16.1	15.5	14.6	15.3	16.9	15.2	18.1	15.7

- (i) Calculate the mean of this data.
Give your answer to 2 decimal places.
Be sure to show sufficient working to make your method clear.

- (ii) Transfer the list of data into the grouped frequency table below.

Weight	Tally	Frequency	Mid-interval	
$14.0 \leq w < 14.5$			14.25	
$14.5 \leq w < 15.0$				
$15.0 \leq w < 15.5$				
$15.5 \leq w < 16.0$				
$16.0 \leq w < 16.5$				
$16.5 \leq w < 17.0$				
$17.0 \leq w < 17.5$				
$17.5 \leq w < 18.0$				
$18.0 \leq w < 18.5$				

- (iii) Now suppose that the data list is lost.
From your grouped frequency table, calculate an estimate of the mean.
Use the 'extra' columns in the table to help you do this.
- (iv) Explain the difference, if any, between your part (i) and part (iii) answers.

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Teachers may obtain detailed worked solutions to the exercises by email from MHHShrewsbury@Gmail.com