

MMMR Worksheet

Statistics

Mean, median, mode and range (MMMR)

Statistics: MMMR worksheet

The following data are age datasets collected from a hospital:

Dataset	Ages
1	6, 15, 12, 12, 11
2	32, 23, 31, 28, 32, 26
3	10, 12, 25, 3, 37, 13, 12, 18, 41, 33
4	1, 3, 14, 7, 6, 12, 18, 7, 23, 10, 5, 14, 0, 25, 8

Task one: part A

Pick a set of data from the table above and find its MMMR.

Task one: part B

Explain your results to the person sat next to you, trying to include the following:

- methods used to order and process the data
- what each of your calculated values represents (refer to definitions)
- how the data you have processed can be used to draw conclusions.

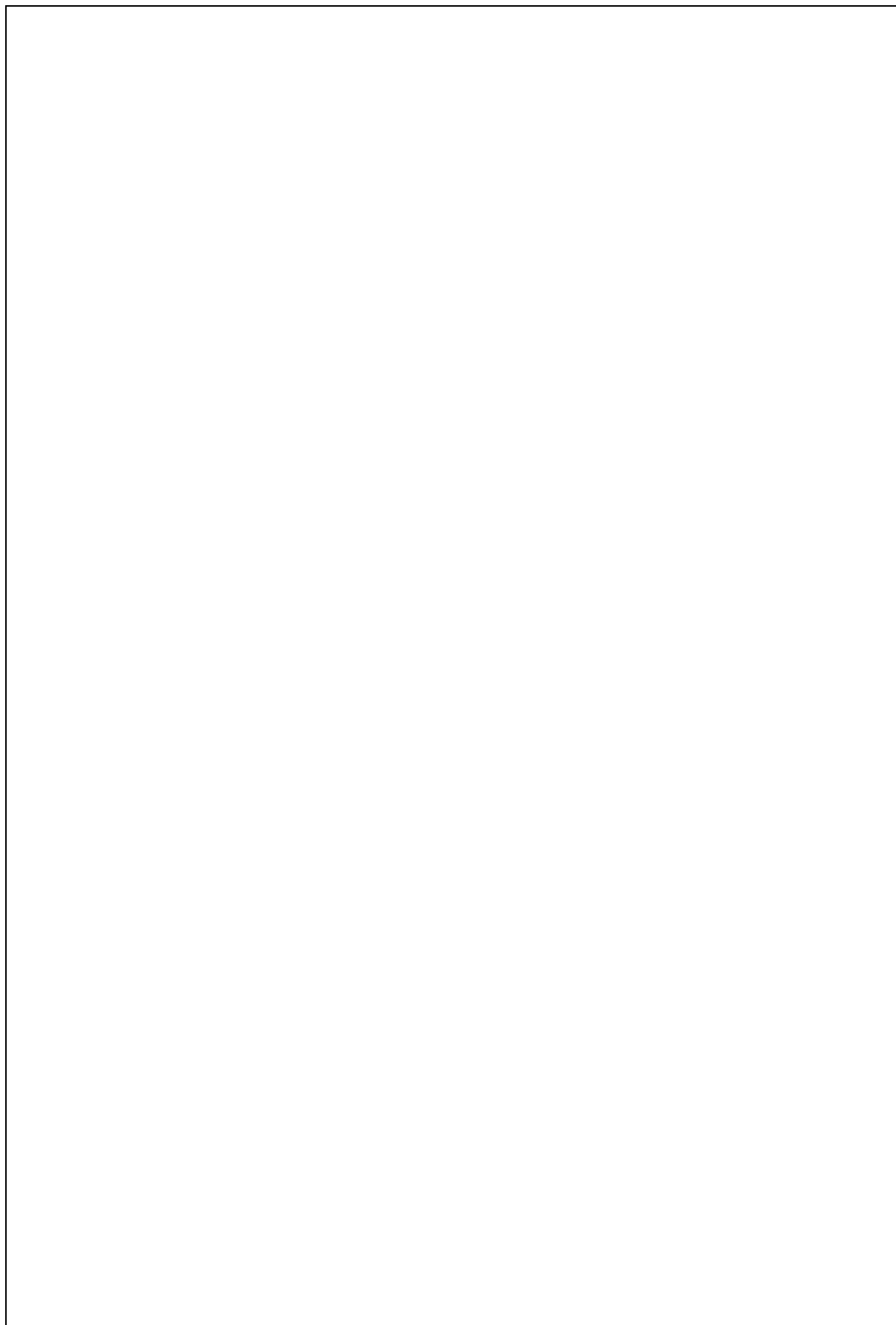
Task one: stretch and challenge

Apply the same processes to the following set of grouped data. We will look at this as a worked example in the next part of today's lesson.

This table shows information collected by school nurses on the weights of 60 schoolchildren. These data will be used by industry professionals for medical research purposes.

- Write down the modal class.
- Write down the class containing the median.
- Estimate the range of weights.

Weight (w kg)	Frequency
$30 < w \leq 40$	8
$40 < w \leq 50$	16
$50 < w \leq 60$	18
$60 < w \leq 70$	12
$70 < w \leq 80$	6
Total	60



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Task two: part A

The grouped frequency table below represents data collected from heights of 79 different patients.

Height (cm)	$145 \leq x < 155$	$155 \leq x < 165$	$165 \leq x < 175$	$175 \leq x < 185$
Frequency	18	22	24	15

- Estimate the mean.
- Which class contains the median?
- State the modal class.

Task two: part B

During a science experiment 10 seeds were planted, and their growth was measured to the nearest cm after 12 days. The results were recorded in the table below.

Use the table to find:

- the modal class
- the class which contains the median
- an estimate of the mean growth.

Growth (cm)	Number of plants
$0 \leq x < 2$	2
$3 \leq x < 5$	4
$6 \leq x < 8$	3
$9 \leq x < 11$	1

Task three

Staff at a histology lab that processes human tissue samples are looking at their lab resources. They have compiled a table of the number of processes they complete along with the number of test tubes being used for each process. Calculate the mean number of test tubes using the data below:

No. of test tubes	Frequency
0	7
1	8
2	9
3	10
4	11
5	4
6	2

Why would this calculation be beneficial for laboratory management processes?

Consider the following:

- equipment needs
- storage of equipment
- cleaning of equipment
- maintenance of equipment
- testing requirements.

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