

Standard deviation worksheet

Statistics
Standard deviation

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Statistics: Standard deviation worksheet

The following 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 1 – Part A

Pick a dataset from the above table and find the standard deviation (SD) of that dataset.

Task 1 – Part B

Explain your results to the person sitting next to you. Trying to include:

- the methods used to order and process the data
- what each of your calculated values represent
- how the data you have processed can be used to draw conclusions regarding the spread of the data.

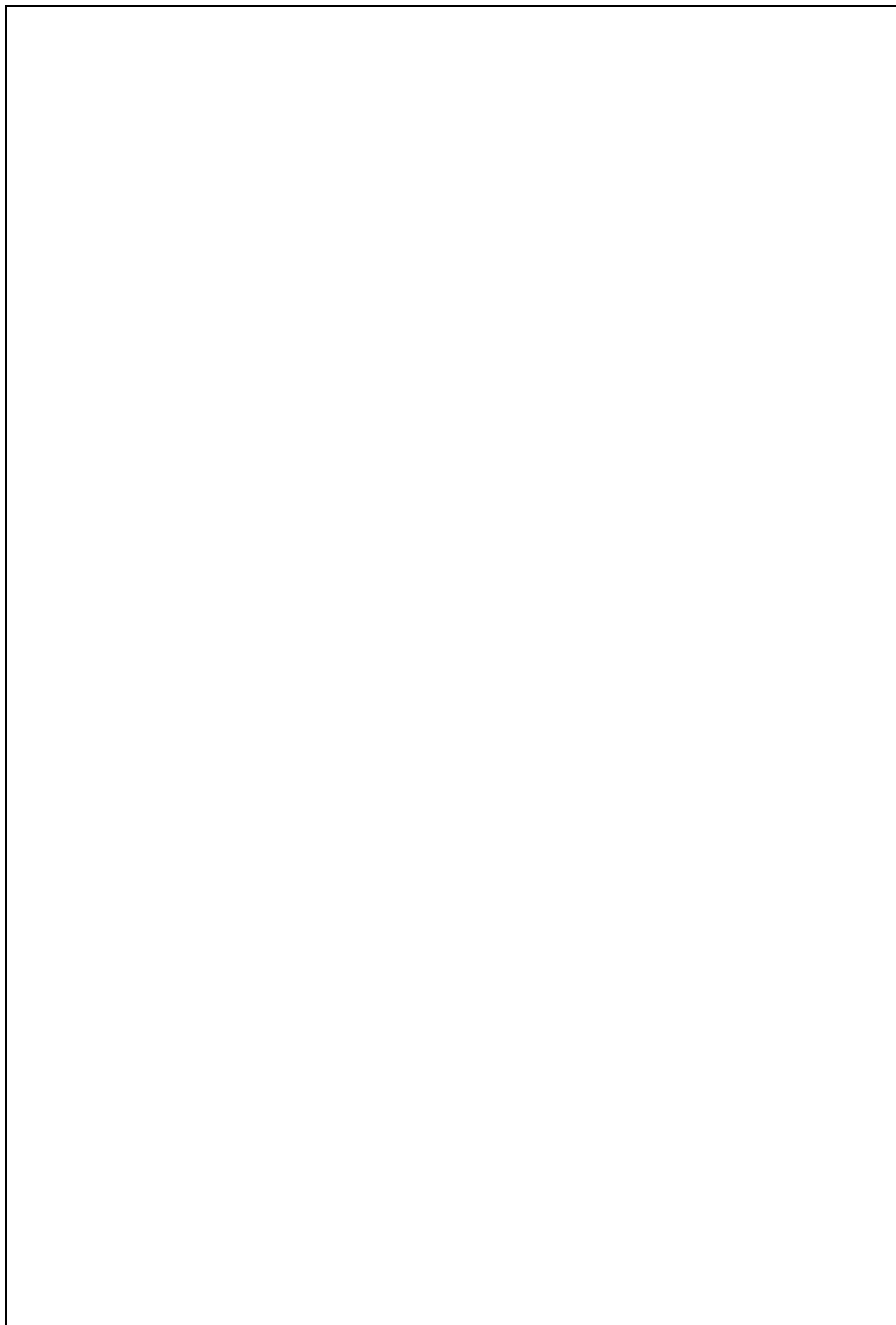
Task 2

Employees in a healthcare setting completed a survey measuring their mental wellbeing. The employer collected the data from ten employees. The following dataset represents these values:

5, 10, 12, 13, 18, 6, 9, 13, 15

- a) Calculate the SD of the dataset.
- b) What does the SD value suggest?

Stretch and challenge: Are there any outliers in the dataset? Suggest a cause for these outliers.



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Task 3

Medical professionals collected blood samples to analyse glucose levels in patients. The following dataset shows their results:

6, 11, 13, 14, 19, 7, 8, 14, 16

- a) Calculate the SD of the dataset.
- b) What does the SD value suggest?

Stretch and challenge: Are there any outliers in the dataset? Suggest a cause for these outliers.

Task 4

A laboratory technician was collecting fire residue samples from nine different parts of a laboratory to try to identify the source of a fire. The dataset below outlines the number of samples found in each area:

7, 12, 14, 15, 20, 8, 9, 15, 17

- a) Calculate the SD of the dataset.
- b) What does the SD value suggest?

Stretch and challenge: Are there any outliers in the dataset? Suggest a cause for these outliers.

Task 5

An associate physician was reviewing the number of urine samples collected in a day across different departments in a hospital. The data below outlines the total number of urine samples collected across each of the nine different departments:

8, 10, 9, 11, 21, 7, 8, 16, 17

- a) Calculate the SD of the dataset.
- b) What does the SD value suggest?

Stretch and challenge: Are there any outliers in the dataset? Suggest a cause for these outliers.

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