9

The length of the first 10 words of 2 books are listed below. Find the range, variance, and standard deviation for each of the two samples, then compare the two sets of results. Does there appear to be a difference in variation?

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Book 1 | 4 | 6 | 2 | 3 | 5 | 6 | 4 | 3 | 4 | 2 |
| Book 2 | 12 | 6 | 11 | 10 | 9 | 8 | 10 | 10 | 4 | 10 |

Find the range for Book 1

Range = \_\_\_\_\_\_ letters

Find the range for Book 2

Range = \_\_\_\_\_\_ letters

Find the sample variance and sample standard deviation for Book 1.

Sample variance = \_\_\_\_\_\_\_\_ letters²(round to one decimal place as needed)

Sample standard deviation = \_\_\_\_\_\_\_\_ letters

(Do not round until final answer. Then round to one decimal place as needed)

Find the sample variance and sample standard deviation for Book 2.

Sample variance = \_\_\_\_\_\_\_\_ letters²(round to one decimal place as needed)

Sample standard deviation = \_\_\_\_\_\_\_\_ letters

(Do not round until final answer. Then round to one decimal place as needed)

Is there a difference in variation between the two books?

