

The statistics that answer the question, "How varied are the values?"

Arnold ran each afternoon for 5 days. His distances (in miles) were 10, 10, 10, 10, and 10.

Find the mean (or average) number of miles that Arnold ran each day. _____

Complete the table:

Table for Arnold's distances		
Distances	Difference from the mean	Square of difference from the mean
10		
10		
10		
10		
10		
Sum of squared differences:		
Sum of squared differences divided by 4 (since there were 5 distances):		
Square root of the sum of squared differences divided by 4:		

That last value is the standard deviation for the distances Arnold ran. What are the units? _____

The number above it is the variance for the distances. What are the units? _____

Becky ran each afternoon for 5 days. Her distances (in miles) were 8, 9, 10, 11, and 12.

Find the mean (or average) number of miles that Becky ran each day. _____

Complete the table:

Table for Becky's distances		
Distances	Difference from the mean	Square of difference from the mean
8		
9		
10		
11		
12		
Sum of squared differences:		
Sum of squared differences divided by 4 (since there were 5 distances):		
Square root of the sum of squared differences divided by 4:		

That last value is the standard deviation for the distances Becky ran. What are the units? _____

The number above it is the variance for the distances. What are the units? _____

Caleb ran each afternoon for 5 days. His distances (in miles) were 7, 9, 10, 11, and 13.

Find the mean (or average) number of miles that Caleb ran each day. _____

Complete the table:

Table for Caleb's distances		
Distances	Difference from the mean	Square of difference from the mean
7		
9		
10		
11		
13		
Sum of squared differences:		
Sum of squared differences divided by 4 (since there were 5 distances):		
Square root of the sum of squared differences divided by 4:		

That last value is the standard deviation for the distances Caleb ran. What are the units? _____

The number above it is the variance for the distances. What are the units? _____

Donna ran each afternoon for 5 days. Her distances (in miles) were 3, 3, 4, 5, and 35.

Find the mean (or average) number of miles that Donna ran each day. _____

Complete the table:

Table for Donna's distances		
Distances	Difference from the mean	Square of difference from the mean
3		
3		
4		
5		
35		
Sum of squared differences:		
Sum of squared differences divided by 4 (since there were 5 distances):		
Square root of the sum of squared differences divided by 4:		

That last value is the standard deviation for the distances Donna ran. What are the units? _____

The number above it is the variance for the distances. What are the units? _____