

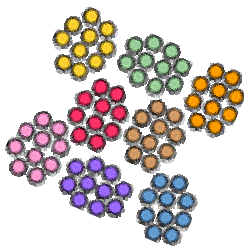
# Statistics

**Data:**  
A collection of facts from which conclusions may be drawn

A branch of applied mathematics concerned with the collection and interpretation of quantitative data

....for its expiation (a deliberate oath) feed ten Masâkîn (needy persons), on a scale of the **average** of that with which you feed your own families, or clothe them or manumit a slave.....  
5:89

Term	Definition	How to find	Example using the Sample Prayer Data below
<b>Mean</b>	An average of n numbers computed by adding the numbers and dividing by n	1. Add the data items. 2. Divide by the number of items.	1. $2+4+4+3+4=17$ 2. $17/5 = 3.4$ 3. The average number of rakaat per prayer is 3.4.
<b>Mode</b>	The most frequent value	Find the value that occurs the most frequently	The mode of this data is 4. It occurs 3 times.
<b>Median</b>	the middle value	We have two cases:  <u>odd set of data</u> e.g. 2, 3, 4 Find the middle value: 3 is the median, it is in the middle  <u>even set of data</u> 42, 46, 48, 49, 50, 51, 55, 56 1. Arrange the data from least to smallest. 2. Take the average of the two middle numbers; this is the median; here it is 49.5	2, 3, 4, 4, 4  Median is 4.
<b>Range</b>	The difference between the lowest value and the highest value	Subtract the lowest value from the highest value	$4 - 2 = 2$ The range of this data is 2.



Sample data

Salaah	# of rakaat
Fajr	2
Dhuhr	4
Asr	4
Maghrib	3
'Isha	4

