

AusVELS 7.0 *Students will be able to identify and calculate mean and median.*

Calculating Mean

Step 1	Write the question.	A netball team scored the following in 10 games: 17, 23, 31, 19, 50, 29, 16, 23, 30, 32. Calculate the Mean.
Step 2	Calculate the total of the netball scores.	Total score = 17 + 23 + 31 + 19 + 50 + 29 + 16 + 23 + 30 + 32 = 270
Step 3	Calculate the number of netball scores	Number of scores = 10
Step 4	Indicate <ul style="list-style-type: none"> - The mean or average of a set of scores is the sum of all the scores divided by the number of scores. - It is denoted by the symbol \bar{x} (say 'x bar'). - Formula for Mean is $\frac{\text{score}}{\text{Number of scores}}$ Define the rule for the mean.	Mean = \bar{x} $= \frac{\text{Total score}}{\text{Number of scores}}$
Step 5	Substitute the known values into the rule.	$\bar{x} = \frac{270}{10}$ $= 27$
Step 6	Answer the question.	The mean is 27.
Step 7	Check the reasonableness of this answer.	Max score = 50 Min score = 16 The mean of 27 lies between Max and Min

Calculating Median

Step 1	Write the question.	A netball team scored the following in 10 games: 17, 23, 31, 19, 50, 29, 16, 23, 30, 32.
Step 2	Indicate - The median is the middle score for an odd number and the average of the two middle scores for an even number of scores (when scores are placed in ascending order). Arrange the values in ascending order.	Calculate Median. 16, 17, 19, 23, 23, 29, 30, 31, 32, 50
Step 3	Select the middle value. Alternatively use the rule $\frac{n+1}{2}$ to give the position of the median.	The location of the median is $\frac{10+1}{2} = 5.5$; that is between the 5 th and 6 th score.
Step 4	There are an even number of scores. Systematically cross off the scores – one at high end, one at low end etc. Obtain the average of the two middle values.	Median = $\frac{23+29}{2}$ = 26
Step 5	Answer the question.	The median is 26.