

Formulae for Mean and Standard Deviation – MEI Board

For a list of numbers	For frequency distributions
<p>Mean, $\bar{x} = \frac{\sum x}{n}$</p> <p>(Not given in the formula booklet)</p>	<p>Mean, $\bar{x} = \frac{\sum fx}{\sum f}$</p> <p>(Not given in the formula booklet)</p>
<p> $S_{xx} = \sum (x_i - \bar{x})^2$ $= \sum x_i^2 - \frac{(\sum x_i)^2}{n}$ $= \sum x_i^2 - n\bar{x}^2$ </p> <p>(Given in the formula booklet)</p>	<p> $S_{xx} = \sum fx_i^2 - \frac{(\sum fx_i)^2}{n}$ $= \sum fx_i^2 - n\bar{x}^2$ </p> <p>(Not given in the formula booklet)</p>
<p>Sample Variance, $S^2 = \frac{S_{xx}}{n-1}$ (Given in the formula booklet)</p> <p>Sample Standard Deviation, $S = \sqrt{\frac{S_{xx}}{n-1}}$ (Given in the formula booklet)</p>	