

## The Mean

Example      Class of 14 boys and 8 girls  
Class mean score 78%  
Boys mean score 76.5%  
Find girls mean score

$$\begin{array}{rcl} \text{Class total marks} & = & 22 \times 78 = 1716 \\ \text{Boys total marks} & = & 14 \times 76.5 = 1071 - \\ \text{Girls total marks} & = & \underline{645} \\ \text{Girls' mean} & = & \frac{645}{8} = 80.625 \end{array}$$

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To calculate a mean we need the total of the items divided by the number of items  
Such totals may have to be constructed from other information available.

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## Estimating Mean for Grouped Data

Height	Freq	Midpt	Freq $\times$ Midpt
$0 < h \leq 10$	6	5	$6 \times 5 = 30$
$10 < h \leq 20$	10	15	$10 \times 15 = 150$
$20 < h \leq 30$	14	25	$14 \times 25 = 350$
$30 < h \leq 40$	5	35	$5 \times 35 = 175$
	35		945

$$\text{Estimate for Mean} = \frac{945}{35} = 27$$