Guide to:
Reverse mean

maths Links

Explanation:

Because **Mean =** $\frac{\textbf{Total of Values}}{\textbf{Number of Values}}$, you can rearrange this formula to find the total of any group whenever you are given its mean: **Total = Mean × Number of Values**.

In any **reverse mean** or **combined mean** question, your very first step should always be to multiply each given mean by the number of items to find the **totals**, then add or subtract the totals as required.

Example 1: The mean mass of **5 parcels** is **14 kg**. When a 6th parcel is added, the mean of all **6 parcels** becomes **15.5 kg**. Find the mass of the 6th parcel.

Solution:

Total of 5 parcels = 5 × 14 = **70 kg**
Total of 6 parcels = 6 × 15.5 = **93 kg**
Mass of 6th parcel = 93 − 70 = 23 kg
Answer: 23 kg

Example 2: In a class, **12 boys** have a mean score of **65** and **18 girls** have a mean score of **70**. Work out the mean score for all **30 students**.

Solution:

Boys total = 12 × 65 = **780**
Girls total = 18 × 70 = **1260**
Combined total = 780 + 1260 = **2040**
Overall mean = 2040 ÷ 30 = **68** → **Answer: 68**

Worksheets and other links					
Video Lesson on this topic	Video		**E Classroom**	Qs	Ans
Ken Stafford (Past Paper Qs)	Qs	Ans	**PMT (Edexcel)**	Qs	Ans
Ken Stafford (Worksheet)	Qs	Ans	**PMT (AQA)**	Qs	Ans
1st Class Maths	Qs	Ans	**PMT (IGCSE)**	Qs	Ans
Dr Austin Maths	Qs	Ans	**Dr Frost**	Qs	Ans
Maths Made Easy	Qs	Ans	**esheets - Online practice**	link	

Questions by topic

Past Papers

Maths worksheets

Buy workbook

Quizzes

More resources like this

ken@mathslinks.co.uk