WEIGHTED GROUP MEAN AND UNWEIGHTED GROUP MEAN

Problem: find the total mean when there are a different number of subjects in two or more groups.

Solutions: There are two methods. The methods may result in very different results.

Method One: Unweighted Groups mean. Each **group** is used as one entity regardless of the number subjects in that group.
As a result, the value of each subject's score depends on group membership.

Method Two: (The method used by Spatz)
Weighted groups mean
Each subject is counted equally regardless of group membership. The impact of each group depends on the number of subjects in that group.

Example:	n or number of subjects	group mean	group total of scores
Group 1	15	10	150
Group 2	45	20	900
Group 3	90	30	2700
Total	150		3750

Unweighted Group total mean $(10 + 20 + 30) / 3 = 60/3 = 20.0$

Note that each group mean is counted as one entity.
The groups count the same.
The groups are unweighted by group n.

Weighted Group mean $(150 + 900 + 2700) / 150 = 3750 / 150 = 25.0$

Note that each subject is counted the same. The largest group has the most impact.

Which is correct? Both are correct depending on the situation. The **important thing to know** is that two methods can give different results. Know which method is being used and which method is most appropriate for a specific setting.