

Student Activity: To investigate the effect of multiplying all the data by a common constant.

Use in connection with the interactive file “Effect on the Mean by multiplying by a constant” on the Student’s CD.

1. Insert the data set 8, 7, 6, 5, 4 into the interactive file and click the arrow to calculate the mean.

2. Insert 5 as the common constant and click to calculate the new mean. Explain what this does to each data item and record the new mean.

3. Repeat with different common constants. Do you notice any relationship between the mean before the data items are all multiplied by the common constant and the mean after the data items are all multiplied by the common constant?

4. What is the effect on the mean of multiplying all the data items by a common constant?

5. If the mean of a set of 10 data items is 34 and each data item is multiplied by 5, what will the new mean be?

6. If each item in a data set is multiplied by 10 and the mean is found to be 23, what would the mean of the original numbers have been?
