# Comparing message traffic in two networks 

Descriptive Data Analysis

## Activity

Consider an experiment in which a performance analyst measures the sizes of messages sent on two different computer networks. The average message size for network A was calculated to be 14.9 kbytes, while the average for network B was found to be 14.7 Kbytes. On the sole basis of these mean values, the analyst may conclude that the characteristics of the message traffic carried on each network are roughly similar. To verify this conclusion, the message-size measurements are grouped into histogram cells, each with a width of 5 kbytes, as shown in the table below. Draw the two histograms on the same scale to be able to compare them. Do you still think that the characteristics of the message traffic carried on each network are roughly similar?

| Message size | Network A | Network B |
| :---: | :---: | :---: |
| $0<x_{i} \leq 5$ | 11 | 39 |
| $5<x_{i} \leq 10$ | 27 | 25 |
| $10<x_{i} \leq 15$ | 41 | 18 |
| $15<x_{i} \leq 20$ | 32 | 5 |
| $20<x_{i} \leq 25$ | 21 | 19 |
| $25<x_{i} \leq 30$ | 12 | 42 |
| $30<x_{i} \leq 35$ | 4 | 0 |

Lilja, David J. Measuring Computer Performance. A practitioner's guide. Cambridge University Press, 2000.

