

3 Effect of a Scale on a Graph

Action

Choose Task A or Task B.

Task A: Books in Class Libraries



1. Oliver counted the number of books in five class libraries:

Class	Number of books
4A	81
4B	80
5A	77
6A	82
6B	79

- a) Graph Oliver's data using a bar graph with a scale of 1 or 2.
- b) Graph Oliver's data using a bar graph with a much larger scale.
- c) Which graph gives the impression that the libraries are about the same size? Which graph does not give this impression?

- d) With which graph are you more certain of the data values?

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Action (continued)

2. Mia counted the books in five other libraries.
Her data are below.

Class	Number of books
6C	81
6D	72
7A	56
8A	68
8B	79

- a) Graph Mia's data using a bar graph with a scale of 4.
- b) Graph Mia's data using a bar graph with a much larger scale.
- c) Which graph give the impression that the libraries are about the same size? Which graph does not give this impression?

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Action (continued)

Task B: Climate in Quito



- Look up average monthly high temperatures in Quito, Ecuador, from January through July. Graph the data using a broken-line graph with a scale of 1 or 2.
 - Graph the data using a much larger scale.
 - Compare how well each graph shows differences in temperature.
- Repeat Question 1, except record average monthly high temperatures for Vancouver, British Columbia.