

Problem Bank

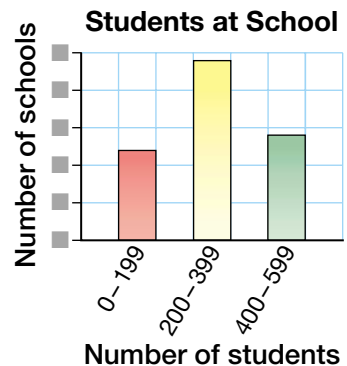
LESSON

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1. Elvin recorded the high temperatures for one week in July. On Monday the high temperature was 24°C . Each day after was 2°C warmer than the previous day.
 - a) Draw a broken-line graph showing the temperatures for that week.
 - b) Describe any trends you see in the graph.
 - c) Predict how the graph would change if each day was 3°C warmer than the day before.

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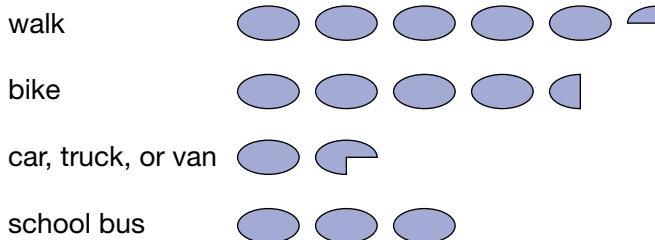
2. The graph shows the number of students at each of the 100 schools in a city.
 - a) What number of schools might each bar represent? Explain your reasoning.
 - b) What do you think is the scale on the vertical axis? Explain your reasoning.



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3. Mona surveyed all the students in her school about how they travelled to school. She made a pictograph of the results, but forgot to complete the scale.
 - a) What is the scale if 210 students walked to school? Explain your reasoning.
 - b) Show how to use the pictograph to estimate the total number of students in the school.

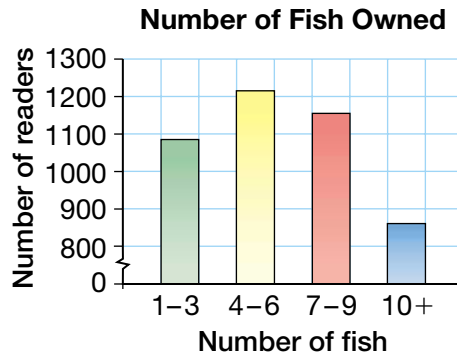
Travelling to School



Each  means  students.

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4. *Fish Owner* magazine asked its readers how many fish they owned. They graphed the results of their survey.
- Describe what happens to the graph if the scale on the vertical axis is kept the same, but includes numbers from 0 to 800.
 - Show how to use the graph to estimate the number of people who answered the survey.



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- Determine the mode and mean of five numbers of your choice.
 - Add 2 to each of your numbers. Determine the mode and mean of these new numbers.
 - How do the mode and mean in part b) compare to the mode and mean in part a)?
 - Predict the mean and mode if you added 3 to each of your numbers from part a). Test your prediction.
6. Alain shared linking cubes to calculate the mean of four numbers.
- What number of linking cubes might have been in each of the four groups before Alain began sharing?
 - How would your answer to part a) change if the mode of the four groups was 0?
7. Choose three numbers that have a mode of 2 and a mean of 3.

