

1.2

Misrepresenting Data

MathLinks 8, pages 18–27

Key Ideas Review

Choose from the following terms to complete #1.

- data false scale visuals

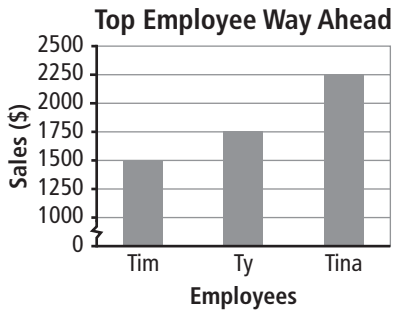
- a) People may misinterpret _____ and draw _____ conclusions when graphs are misleading.

b) Misleading features of graphs may include the following:

 - Distorting the _____.
 - Distorting the information by using _____ of different sizes.

Practise and Apply

- Three employees' sales for one week are shown in the following graph.

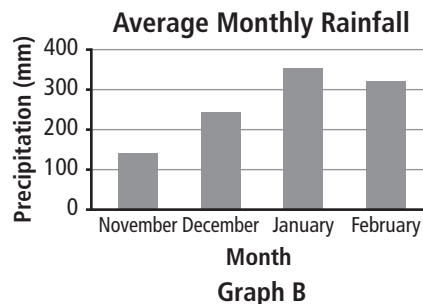
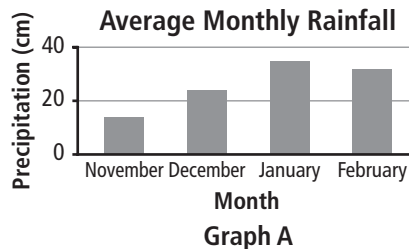


- Explain how this graph could be misleading.

- How much more did Tina sell compared to Ty?

- How should the graph be drawn to make it clearer?

- A tropical destination wants to increase the number of travellers to its resort. The marketing director is trying to decide which graph about rainfall should be included in the new brochure.

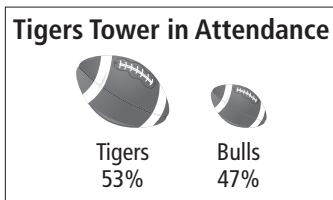


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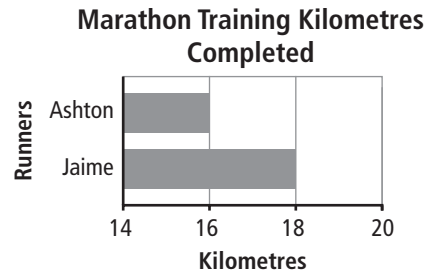
- a) How are the two graphs different?
- b) Explain how Graph A could be misleading.
- c) Which graph do you think the director should choose? Explain your answer.

4. The fans at a football game were asked which team they were supporting. This graph shows the results of the survey.



- a) Which team had more supporters at the game, and by how much?
- b) How is this graph misleading?
- c) How could you draw a graph to show the data more accurately?

5. Jaime and Ashton are training for the marathon. The graph below shows how many kilometres they have completed in their training so far.



- a) How many more kilometres has Jaime completed?
 - b) Describe how to redraw the graph to represent the data more accurately.
6. The information below shows Keisha's practice times for band. She wants to make her practice times look better than they are. Draw the graph she might create. Explain how your graph distorts the data.

Week	1	2	3	4
Practice Time (minutes)	40	25	30	10