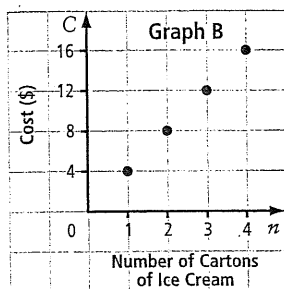
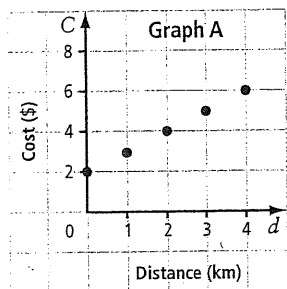


## Communicate the Ideas

1. Tell whether you think it is reasonable to have points between the ones on each graph. Explain your answer.



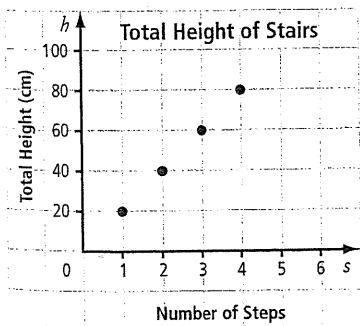
2. Draw a graph of a linear relation. Use integer values only. Label your graph. Write a brief description that matches the information on your graph.
3. Use an example to show one way that a graph and a table of values are different and one way that they are similar.

## Check Your Understanding

### Practise

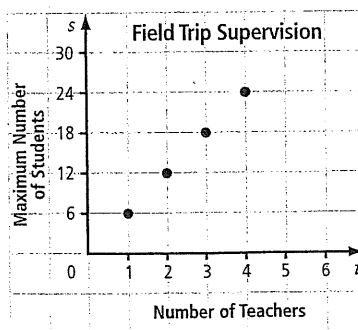
For help with #4 and #5, refer to Example 1 on page 334.

4. The graph shows the increase in total height for each step of a staircase.



- a) Describe patterns you see on the graph.
- b) Make a table of values from the graph.
- c) If the pattern continues, what is the total height on step 10?

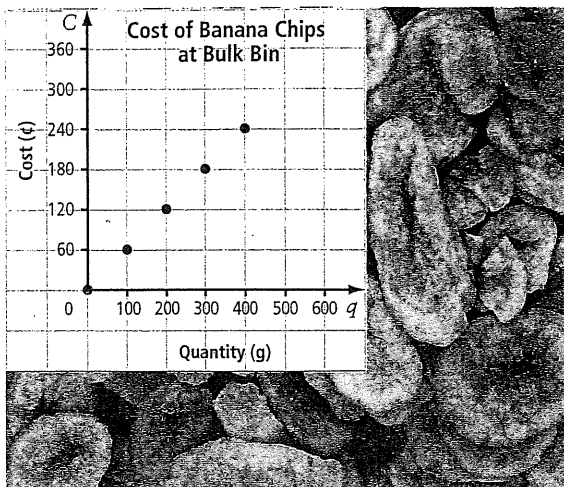
5. The graph shows the maximum number of students allowed on a field trip based on the number of teachers available to supervise.



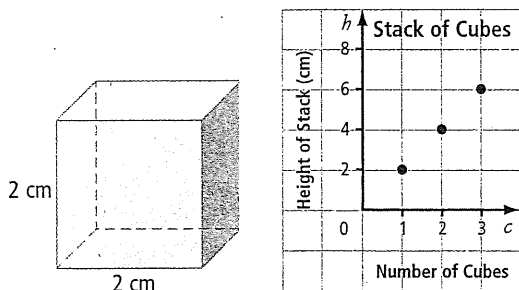
- a) Describe three patterns on the graph.
- b) Make a table of values from the graph.
- c) If there are eight teachers available for a field trip, what is the maximum number of students who can go?

For help with #6 and #7, refer to Example 2 on page 335.

6. Tessa and Vince go shopping at Bulk Bin. The graph shows the cost of banana chips.



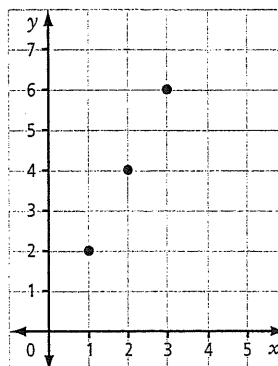
- Describe patterns shown on this graph. Does the graph show a linear relation? Explain.
  - Make a table of values from the graph.
  - Is it reasonable to include a point on the graph that shows the cost of 250 g of banana chips? Explain.
7. The graph shows the height of a stack of cubes in relation to the number of cubes.



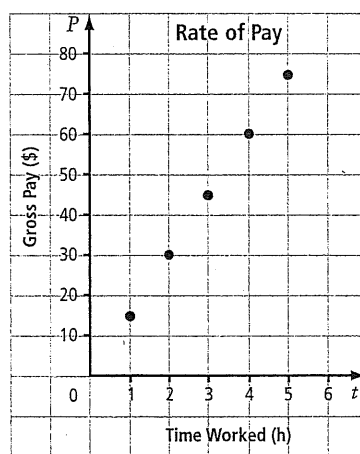
- Describe patterns on the graph. Does the graph show a linear relation? Explain.
- Make a table of values from the graph.
- Is it reasonable to include a point for  $c = 2.5$ ? Explain.

## Apply

8. a) Make a table of values for the ordered pairs on the graph.



- Assume the pattern continues. Extend your table, using the next three whole number values for  $x$ .
  - Describe the patterns on the graph.
  - What is the value of  $y$  when the value of  $x$  is 9?
9. The graph shows the rate of pay based on the number of hours worked.



- Make a table of values from the graph.
- What is the hourly rate of pay shown on this graph?
- Do you think it is reasonable to include a point for  $t = 3.5$  h?