Wim's Waffles

You need: a computer

Wim runs a shop that sells ice cream in waffle cones. To help him predict how much he will need of each ingredient, he keeps a tally of the number of cones he sells each day.

This table shows the number he has sold over the last 25 days:

| | Week 1 | Week 2 | Week 3 | Week 4 |
|-----------|--------|--------|--------|--------|
| Monday | 220 | 262 | 302 | 317 |
| Tuesday | 249 | 280 | 280 | 340 |
| Wednesday | 218 | 258 | 290 | 558 |
| Thursday | 346 | 380 | 370 | 396 |
| Friday | 400 | 454 | 472 | |
| Saturday | 536 | 680 | 320 | |
| Sunday | 618 | 658 | 730 | |

- Enter the above information into a computer spreadsheet and use it to draw:
 - a. a time-series graph for the 25 days, using the line graph option
 - **b.** a clustered column graph with different-shaded columns for each of the 4 weeks
 - **c.** a Monday-Sunday time-series graph, showing each of the 4 weeks as a separate line.
- **2. a.** Which days are usually busiest?
 - **b.** Wim's sales on the third Saturday are a lot lower than usual. What may have caused this?
 - c. On another day, the number of sales is different to what could have been expected. Which day? What might have caused this?
- **3. a.** The *trend* is the general direction in which something is heading. What is the trend of Wim's sales?
 - **b.** The *seasonal pattern* is the pattern that you see more or less repeating itself each week. What seasonal pattern can you see in Wim's sales?
- 4. Predict waffle cone sales on the Friday, Saturday, and Sunday of the fourth week. Explain how you reached your prediction.
- 5. To get enough ingredients for the fifth week, Wim needs to predict his sales for that week.
 How many waffle cones do you think he will sell?
 Explain how you reached your answer.

