

FSKNUM018

**Collect data and construct
routine tables and
graphs for work**

Release 1

Learner guide

Aspire Version 1.1

FSNUM018



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Before you begin

This learner guide is based on the unit of competency
FSKNUM018 Collect data and construct routine tables and graphs for work, Release 1.

How to work through this learner guide

Your trainer or assessor will tell you which parts of the learner guide you need to read, and which activities you need to finish. The learner guide has the following parts.

Part	How you use it
Learning content	Read each topic. If you do not understand something, talk to your trainer.
Examples	This learner guide has examples of completed documents that may be used in a workplace.
Video clips	Where you see a QR code, you can use a smartphone or tablet to access video clips about the content. For information about how to download an app that will read the QR code or for more help, please visit our website: www.aspirelr.com.au/help . 
Learning checkpoints	Complete learning checkpoints to make sure you understand what you have read. Your trainer will tell you which activities to do.
What you have learned	At the end of the learner guide, there is a list of what you have learned. You can use this to check if you are ready for the final assessment.



Your story

You've just started work as a sales and marketing assistant for an online shoe retailer, Walk this way.

Their products are Australian made and growing in popularity, with almost a quarter of their orders coming from outside of Australia.

You report to the sales and marketing coordinator, Lucy. Lucy tells you about the tasks you will do when working with his team. Tasks are things you need to do in your job.

Your tasks

Learn about your tasks below.



Obtain data for sales and marketing reports

Understand what data you need and where to get it from.



Organise and sort the data for the reports

Organise the data and produce graphs as required for the sales and marketing reports.



Add the data and graphs to the sales and marketing reports

Add your sales and marketing data and graphs to the reports.



Participate in a sales and marketing meeting

Present the data in the meeting and answer any questions about the data.



Day 1

Lucy explains that your role will be to support her preparing marketing campaigns and producing sales and marketing reports.

Lucy assures you that she will help you put together the data for your first sales and marketing report. She explains that the first step involves collecting the required data.

What is data?

Data is a collection of facts – such as numbers, words, measurements, observations or even just descriptions of things.

Data can be qualitative or quantitative.

Qualitative data describes something. For example, you could ask your friends what their favourite holiday would be. Their responses would be qualitative data.

Quantitative data uses numbers. For example, if you measured the height of everyone in your family, this would give you quantitative data.

Almost all daily work activities generate data. These could include the:

- Number of employees
- Number of hours worked by employees
- Total amount employees are paid
- Number of products sold per day
- Amount of money generated by products sold
- Number of customer orders per day
- Number of customer queries.

Most workplaces will collect this type of data using the information systems they have in place. This may include payroll, accounting software, ecommerce software and customer relationship management (CRM) software.



Why is data collected?

Data is collected for a variety of reasons.

There are legal reasons for collecting data, such as reporting income to the tax office.

Data is also collected to provide information about what has happened. Analysing the data allows people to make sensible guesses (predictions) about what might happen.

For example, Walk this way will look at the amount of shoes they sell during their busiest sales times. This ensures there is enough stock available to meet customer orders leading into the next busy sales period. In this example, the data will help the company make a decision about how much stock they need.

The purpose of data collection

Data may be collected as part of the business function of the business. Walk this way's ordering system captures a shoe order so they can provide a customer with the shoes they want. However, this data can be used to tell the company many things.

Look at the sales data for their brown ladies sandals sold last year:

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Units	120	100	80	40	20	15	15	15	30	80	120	200

From this sales data, we understand that:

- December is the most popular month to buy these shoes
- These shoes are not as popular during winter months
- A total of 835 pairs of this shoe were sold last year.

The purpose of the data will depend on who is using the data and what they need it for.



Day 2

Lucy explains that your role will be to collect, order and collate data into a table or spreadsheet and produce graphs that will go into the sales and marketing report.

The data you will need is saved as a spreadsheet into a folder by the accounts team. It has a lot of information that you won't need for the report, so you will need to sort and collate only the data you need.

You will need to produce tables to show the:

- Product sales for the year so far (including units and values)
- Frequency and percentage frequency of orders of different quantities.

Lucy shows you last month's sales and marketing report.

This demonstrates what the tables and graphs should look like, but she only needs you to prepare them in a spreadsheet for now.

Order and collate data into a table or graph

Often the data will need to be ordered, filtered and collated for the end user.

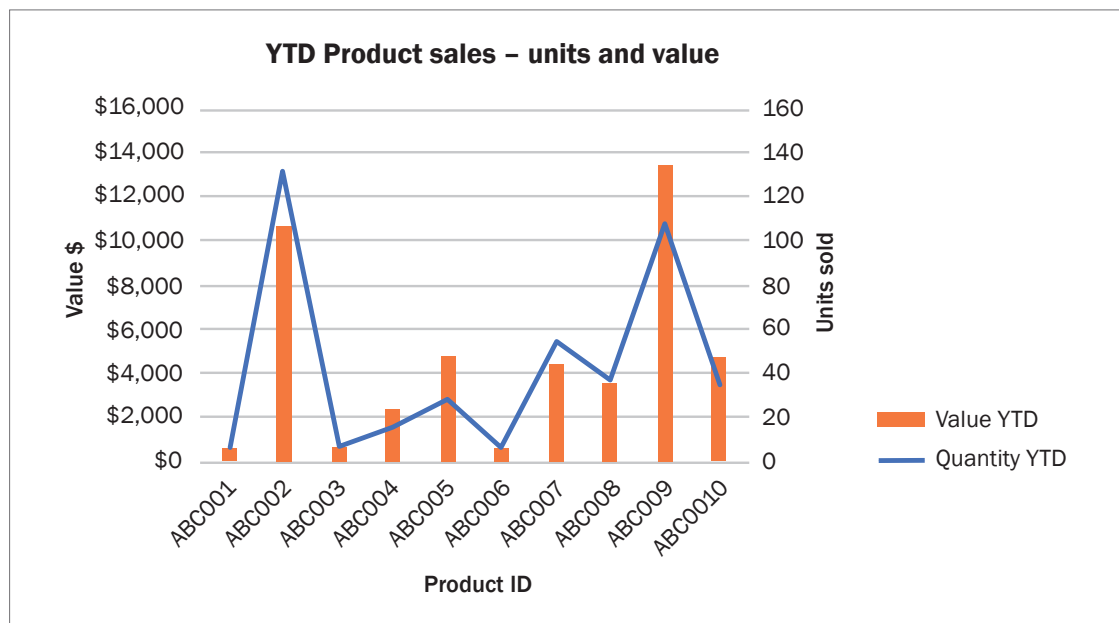
You will need to collate and order the data from Walk this way to show the product sales by unit and quantity both for the month and the year.

There are several ways you can order and collate data in Excel. You may have a method that you prefer, or you might want to watch an online tutorial.

One of the quickest ways to produce both tables and charts in Excel is to use a pivot table and chart. To do this:

1. Highlight your worksheet.
2. From the insert menu, click on Pivot Chart and choose Pivot Chart and Table from the dropdown menu.
3. You can then choose which table or range you want use (your data should already be selected) and where you want the table placed; Excel automatically adds it to a new sheet.
4. In the PivotChart fields box, click on the fields you want to see in your data. For the year's product sales report, you only need to choose product ID, quantity and value.

To show both quantity and value on the same graph, choose combo chart and then select the type of chart you want to use. Afterwards, select Sum of Quantity to be your secondary axis. You can then use the format chart area to change units to currency, edit the labels, scale and axes and change the colours. It might look something like this:



What information needs to be included in graphs?

When creating graphs, you need to ensure your graph has:

- A title
- Labelled axes (the example above has an X axis at the bottom, a Y axis on the left-hand side and a Z axis on the right-hand side)
- An appropriate scale for the data (the example above shows both value in dollars and units sold); the scale has to show the data without making it too big or small.
- Legend – this explains what the colours or lines on the graph represent.



Day 3

Lucy has checked your tables and graphs and is pleased with your work. She now asks you to place them into the sales and marketing report template so she can write some accompanying information that may be useful in interpreting the data.

Lucy has also asked that you write a brief explanation of how you generated the tables and graphs. She also suggests that you be prepared to answer any questions about them during the sales and marketing meeting.

Documenting and reporting your ideas

Tables and graphs are a mathematical representation of the data you have collected, ordered and collated.

Let's look at the first table and think about what you could write that might summarise the main information this table provides.

Row Labels	Quantity YTD	Value YTD
ABC001	6	\$599.70
ABC002	132	\$10,553.40
ABC003	5	\$649.75
ABC004	14	\$2,099.30
ABC005	24	\$4,798.80
ABC006	5	\$599.75
ABC007	54	\$4,317.30
ABC008	38	\$3,798.10
ABC009	104	\$13,514.80
ABC010	34	\$4,758.30
Grand Total	416	\$45,689.20

You could summarise the key information like this:

- Product ABC009 has made the most money so far this year: \$13,514.80
- Product ABC002 has sold the most units so far this year: 132
- Products ABC001, ABC003 and ABC006 have all sold less than 10 units so far this year.

What you have learned

Well done. While working at Walk this way, you have learned about:

- What is data
- Why data is collected
- The purpose of data collection
- Who uses data
- Data sources
- Choosing the process for completing the work task
- Asking yourself what the data should show
- Obtaining data
- Deciding what data you need to complete the task
- Ordering and collating data into a table and graph
- Performing calculations in spreadsheets
- Checking and reflecting on expected results.
- Documenting and reporting your ideas
- Presenting your ideas.

You are now ready for the Final Assessment.