

**LEARNING PATH / 90-120 minutes**

# Analysis and decisions

## Numbers, data quality and conclusions

### What you will practise

Check simple calculations, identify missing data and develop a recommendation that does not confuse revenue with profit.

### Before you begin

You can work from source material. Have a calculator or spreadsheet ready to check AI calculations independently.

### Working principle

AI can get calculations, units or metric definitions wrong. First define what you are measuring. Comparisons need the same period and rules. Correlation does not establish causation. With a small or incomplete sample, offer a hypothesis rather than a confident diagnosis.

### How to use this workbook

Complete the exercises and save each prompt and result before checking the answer guide. AI responses may differ; assess them against the criteria rather than expecting identical wording. Timings are approximate self-study estimates, not a separate offer of training hours.

### Exercise data

All examples are fictional. Do not enter personal data, passwords, secrets or confidential documents. For workplace exercises, use only material approved for the chosen tool. Do not send drafted messages to real recipients.

**WORKSHOP / 35 minutes**

# Which sales channel performs better?

## Source material

Same month, fictional data. Channel A: 40 orders, PLN 8,000 revenue excluding VAT, PLN 1,000 advertising spend excluding VAT. Channel B: 25 orders, PLN 7,500 revenue excluding VAT, PLN 1,500 advertising spend excluding VAT. Product costs, delivery, returns and attribution of sales to advertising are unknown. Revenue includes all sales through each channel.

## Your task

Calculate average revenue per order and the ratio of total channel revenue to advertising spend. Check the calculations independently. Explain what cannot be concluded about profit or the effect of advertising alone. Prepare questions before any budget change.

## Starting prompt

For A and B, calculate revenue / orders and total channel revenue / advertising spend. Show the calculations and units. Do not call the second ratio advertising-attributed ROAS because attribution is unavailable. Do not infer profit. Separate calculations, limitations and questions to resolve before deciding.

## Save your result

A calculation table, an independent check and a conditional recommendation.

## Reflection

What did AI get right? What needed correcting? How will you change the prompt next time? Record your answers in your working document.

**WORKSHOP / 30 minutes**

# Find problems in the data

## Source material

Test export: K-01 | PLN 120 | paid; K-02 | PLN 250 | paid; K-02 | PLN 250 | paid; K-03 | amount missing | paid; K-04 | PLN 90 | cancelled. All amounts use the same VAT basis. It is unknown whether the repeated K-02 is an export error.

## Your task

Add the visible amounts and distinguish that sum from confirmed sales. List data-quality problems. Suggest a deduplication rule, but do not delete rows automatically. State which information needs confirmation.

## Starting prompt

Check the export. Identify duplicates, missing values and statuses that exclude a sale. Give the sum of all visible amounts, then the known paid total assuming K-02 is a duplicate. State that assumption explicitly. Do not treat the missing amount as zero.

## Save your result

A data-quality report with two clearly labelled totals.

## Reflection

What did AI get right? What needed correcting? How will you change the prompt next time? Record your answers in your working document.

## REVIEW AND FURTHER PRACTICE

# Check your result

## Answer guide

A:  $8,000 / 40 = \text{PLN } 200$  per order;  $8,000 / 1,000 = 8$ . B:  $7,500 / 25 = \text{PLN } 300$  per order;  $7,500 / 1,500 = 5$ . B has higher average revenue per order; A has the higher ratio of total channel revenue to advertising spend. Profit and the effect of advertising remain unknown. The sum of all visible export amounts is PLN 710. Assuming K-02 is a duplicate and excluding cancelled K-04, the known paid amounts total PLN 370. This is a partial total: K-03 still needs its amount confirmed.

## Completion criteria

- Formulas and units are explicit.
- Results have been checked with a calculator or spreadsheet.
- Assumptions are separated from facts.
- No spending change is proposed on the basis of incomplete data.

## When to move on

Move on when you meet every criterion above and can explain your corrections. If a result contradicts the source, revise the prompt and try again. This is a skills self-assessment, not certification.

## Apply it to your work

Choose one metric from your work. Define its source, period, exclusions and checking method before asking AI to interpret it.

## Where this fits

Foundations / Working with documents / Analysis and decisions / Repeatable workflows / Your own project with AI. These are five levels of practice material. For a four-hour workshop, I select exercises appropriate to the group; completing the entire path requires additional practice. Confirm the available workshop language before booking.