Excel Practice — Verified Answers

All 20 worked responses refer to the same cleaned fictional dataset (175 accepted sessions). Excel version compatibility varies; modern dynamic arrays require supported editions.

Q1. Cell references

In a scratch area put 12 in A2 and 8 in B2. Compute their total using relative references.

```
=A2+B2
```

Verified answer: 20

Relative cell references move when copied.

Q2. SUM

Find total recorded minutes in tblSessions.

```
=SUM(tblSessions[MinutesSpent])
```

Verified answer: 8225

SUM ignores missing durations; it is not total real-life learning time.

Q3. AVERAGE

Find mean minutes for recorded nonblank durations.

```
=ROUND(AVERAGE(tblSessions[MinutesSpent]),2)
```

Verified answer: 48.96

Seven durations are missing and excluded.

Q4. COUNT

Count valid numeric duration cells.

```
=COUNT(tblSessions[MinutesSpent])
```

Verified answer: 168

COUNT is not total session count.

Q5. MIN / MAX

Calculate the shortest and longest valid session lengths.

```
=MIN(tblSessions[MinutesSpent]) & ", " & MAX(tblSessions[MinutesSpent])
```

Verified answer: 15, 90

Min and max use positive verified durations after cleaning.

Q6. IF

Categorize 30 measured minutes as Long if >=30, else Short.

```
=IF(30>=30,"Long","Short")
```

Verified answer: Long

The threshold is a teaching choice.

Q7. COUNTIF

Count completed valid sessions.

```
=COUNTIF(tblSessions[Completed],"Yes")
```

Verified answer: 124

Completed contains normalized Yes and No labels.

Q8. COUNTIFS

Count Biology sessions marked completed.

```
=COUNTIFS(tblSessions[Subject],"Biology",tblSessions[Completed],"Yes")
```

Verified answer: 22

Both criteria apply to the same rows.

Q9. SUMIFS

Sum Mathematics completed minutes.

```
=SUMIFS(tblSessions[MinutesSpent],tblSessions[Subject],"Mathematics",tblSessions[Completed],"Yes")
```

Verified answer: 1310

Blank minutes do not add invented time.

Q10. AVERAGEIFS

Average Biology completed session minutes.

```
=AVERAGEIFS(tblSessions[MinutesSpent],tblSessions[Subject],"Biology",tblSessions[Completed],"Yes")
```

Verified answer: 45

Only numeric durations from matching sessions are averaged.

Q11. TRIM

Normalize the raw text ' NORTH ' after copying to a scratch cell.

```
=TRIM(" NORTH ")
```

Verified answer: NORTH

TRIM removes ordinary leading/trailing repeated spaces.

Q12. CLEAN / SUBSTITUTE

Remove a nonbreaking space from a constructed value.

```
=TRIM(SUBSTITUTE("North"&CHAR(160),CHAR(160)," "))
```

Verified answer: North

CLEAN alone does not remove every Unicode or NBSP character.

Q13. IFERROR

Provide a visible Not found result for a missing resource ID.

```
=IFERROR(INDEX(tblResources[Subject],MATCH("R999",tblResources[ResourceID],0)),"Not found")
```

Verified answer: Not found

A missing ID is an input quality issue, not evidence it was corrected.

Q14. XLOOKUP / INDEX MATCH

Return the subject of resource R007 using an exact-match lookup.

```
=IFERROR(INDEX(tblResources[Subject],MATCH("R007",tblResources[ResourceID],0)),"Not found")
```

Verified answer: Chemistry

This fallback works in older supported Excel versions.

Q15. TEXT / MONTH

Generate the calendar month key for 15 March 2026.

```
=TEXT(DATE(2026,3,15),"yyyy-mm")
```

Verified answer: 2026-03

The result is text, not a date number.

Q16. FILTER

On modern Excel show only sessions marked Completed=Yes.

```
=FILTER(tblSessions,tblSessions[Completed]="Yes","No matches")
```

Verified answer: 124 rows

Place spill formulas outside existing tables; older versions use built-in filtering.

Q17. PivotTable

Summarize count of SessionID by subject.

```
Rows: Subject; Values: Count of SessionID
```

Verified answer: Mathematics 34; Chemistry 33; other counts in Analysis

Validate PivotTable totals against 175 accepted rows.

Q18. Conditional Formatting

Highlight negative durations in raw data before cleaning.

```
Raw_Sessions!G2:G181 < 0
```

Verified answer: 2 raw sessions flagged

Conditional formatting reveals a problem but does not repair data.

Q19. Chart selection

Choose a line chart for Jan–Jun 2026 counts.

```
Analysis!A35:C40: line chart
```

Verified answer: Jan 29, Feb 30, Mar 29, Apr 28, May 29, Jun 30

A line chart shows ordered monthly movement, not causation.

Q20. Final capstone

Write three findings, the number excluded, and one limitation.

```
Analysis: 175 valid, 124 complete, 8225 min; raw rejects five
```

Verified answer: 175 valid; 124 complete; 8225 measured minutes

Describe observed recorded counts as synthetic descriptive results, not student achievement.