Excel formula and totals audit

Summary, Orders and Rates / Six fictional orders / USD

Invoice total recovered by $77.31

Three formulas understated the invoice total. The corrections include the full order range, remove a double-counted discount, and restore the correct tax-rate lookup.

Measure	Before (USD)	After (USD)
Gross sales	300.05	360.00
Discounts	32.55	24.15
Net sales	267.50	335.85
Tax	23.32	32.28
Invoice total	**290.82**	**368.13**
Net sales tie-out	**-68.35**	**0.00**

Three corrected cells

`Summary!B5`

Omitted order

The summary excluded S-006 gross sales of $59.95. The total now includes the sixth order.

`Summary!B6`

Double-counted discount

The summary counted S-003 twice. Each row discount is now included once.

`Orders!H8`

Wrong rate reference

Domestic S-004 used the export rate. The corrected formula calculates $8.96 in line tax.

Correction and retest

Trace each fix to its input, then recalculate the saved workbook

Summary!B5 Omitted order

Before `=SUM(Orders!E5:E9)`

After `=SUM(Orders!E5:E10)`

Summary!B6 Double-counted discount

Before `=SUM(Orders!F5:F10)+Orders!F7`

After `=SUM(Orders!F5:F10)`

Orders!H8 Wrong rate reference

Before `=ROUND(G8*Rates!$B$6,2)`

After `=ROUND(G8*IF(B8="Domestic",Rates!$B$5,Rates!$B$6),2)`

Input-change tests in Microsoft Excel 2024

Nine recalculations matched 54 values from an independent decimal calculation. Each of the three defects was also reintroduced on its own.

Temporary edit to the corrected file	Invoice total (USD)
Orders!C10 Increase S-006 quantity from 5 to 6	**381.80**
Orders!F7 Increase S-003 discount from $8.40 to $10.40	**365.85**
Rates!B5 Increase domestic rate from 14% to 15%	**370.44**

The saved workbooks contain the original six orders. Their input values and formatting match, and exactly three formulas differ. The corrected workbook was saved again at the restored inputs and invoice total of $368.13.