Grading Rubric: Northwind Traders — Sales Analysis Workbook

8 tasks | 100 points total

Task Requirements

#	Pts	Location	Requirement	Automated checks
1	8	Orders!H82	On the Orders sheet, first define a named range called 'Revenue' that covers H2:H81. Then in cell H1 type the header 'Revenue', and in cells H2:H81 calculate each order line's revenue as Units × UnitPrice (columns F and G). Finally, in cell H82 of the Orders sheet, use SUM with the named range 'Reve	sheet exists: 'Orders' named range: 'Revenue' formula in cell: Orders!H82 uses SUM calculated, not typed: Orders!H82
2	7	Analysis!C2, C3, C4, C5	On the Analysis sheet, in cell B2 enter the label 'North', B3 'South', B4 'East', B5 'West' in column B (rows 2–5). In cell A1 enter 'Region' and in cell C1 enter 'Order Count'. Then in cell C2 of the Analysis sheet, write a COUNTIF formula that counts how many orders in Orders!C2:C81 belong to the	sheet exists: 'Analysis' formula in cell: Analysis!C2 uses COUNTIF formula in cell: Analysis!C5 uses COUNTIF calculated, not typed: Analysis!C2, C3, C4, C5
3	12	Analysis!F2, F3, F4, F5, F6	On the Analysis sheet, in cell E1 enter 'Region', F1 enter 'Total Revenue'. In cells E2:E5 list the four regions (North, South, East, West). Then in cell F2 of the Analysis sheet, write a SUMIF formula that sums the Revenue column (Orders!H2:H81) for all orders whose Region (Orders!C2:C81) matches t	sheet exists: 'Analysis' formula in cell: Analysis!F2 uses SUMIF formula in cell: Analysis!F6 uses SUM calculated, not typed: Analysis!F2, F3, F4, F5, F6
4	12	Orders!I2	On the Orders sheet, in cell I1 type the header 'ProductName'. In cells I2:I81, write a formula using IFERROR wrapped around VLOOKUP that looks up the ProductCode in column E against the Products reference table (Products!$A$2:$D$6) and returns the ProductName (column 2 of that table). If the lookup	sheet exists: 'Orders' formula in cell: Orders!I2 uses IFERROR, VLOOKUP calculated, not typed: Orders!I2, I10, I50
5	13	Orders!J2	On the Orders sheet, add a header 'Margin %' in cell J1. In cell J2, write a formula that first uses XLOOKUP to retrieve the StandardCost for the order's ProductCode (column E) from the Products sheet (look in Products!$A$2:$A$6, return from Products!$D$2:$D$6, and use 'N/A' as the not-found value).	sheet exists: 'Orders' formula in cell: Orders!J2 uses XLOOKUP, IF calculated, not typed: Orders!J2, J25, J70

#	Pts	Location	Requirement	Automated checks
6	13	Analysis!H2	On the Analysis sheet, in cell H1 enter 'Top Rep by Revenue'. In cell H2, use an INDEX/MATCH formula to find the name of the sales representative (Orders!D2:D81) who generated the single highest total revenue. Because each Rep appears multiple times, your formula should use MATCH with the MAXIFS fun	sheet exists: 'Analysis' formula in cell: Analysis!H2 uses INDEX, MATCH calculated, not typed: Analysis!H2 conditional formatting on 'Analysis'
7	17	Analysis!A10	On the Analysis sheet, insert a Pivot Table using the Orders sheet (columns A through J, rows 1–81) as its source. Place the Pivot Table with its top-left corner at cell A10. Configure the Pivot Table so that: Rows show Region, Columns show ProductCode, and Values show the Sum of Revenue (column H).	pivot table present on 'Analysis' chart present: BarChart on 'Dashboard'
8	18	Analysis!L2, L3, L4, L5, L6, M2, M3, M4, M5, N2, N3, N4, N5	On the Analysis sheet, build a performance tier summary starting at cell K1. In K1 enter 'Region', L1 enter 'Total Revenue', M1 enter 'vs. Average', N1 enter 'Tier'. In K2:K5 list the four regions (North, South, East, West). In L2:L5, use SUMIF to calculate each region's total revenue from Orders!C2	sheet exists: 'Analysis' formula in cell: Analysis!L2 uses SUMIF formula in cell: Analysis!L6 uses AVERAGE formula in cell: Analysis!N2 uses IFERROR, IF calculated, not typed: Analysis!L2, L3, L4, L5, L6, M2, M3, M4, M5, N2, N3, N4, N5

Grading Policy

- A cell that holds a typed number where the task required a calculation fails that requirement even if the number is right.
- A correct formula in the wrong cell is a placement error. Award most of the credit and note the correct location.
- A misspelled sheet name that is clearly the intended sheet costs presentation points, not the whole requirement.

Checks listed as automated are verified programmatically against the submitted workbook. Requirements without automated checks are assessed by review.

Reference Solutions

Task 1 (8 pts) — Orders!H82
```
=SUM(Revenue)
```

Task 2 (7 pts) — Analysis!C2, C3, C4, C5
```
=COUNTIF(Orders!$C$2:$C$81,B2)
```

Task 3 (12 pts) — Analysis!F2, F3, F4, F5, F6
```
=SUMIF(Orders!$C$2:$C$81,E2,Orders!$H$2:$H$81)
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Task 4 (12 pts) — Orders!I2
```
=IFERROR(VLOOKUP(E2,Products!$A$2:$D$6,2,FALSE),"Unknown")
```

Task 5 (13 pts) — Orders!J2
```
=IF(XLOOKUP(E2,Products!$A$2:$A$6,Products!$D$2:$D$6,"N/A")="N/A","No Cost Data",(G2-XLOOKUP(E2,Products!$A$2:$A$
```

Task 6 (13 pts) — Analysis!H2
```
=INDEX(Orders!$D$2:$D$81,MATCH(MAXIFS(Orders!$H$2:$H$81,Orders!$D$2:$D$81,Orders!$D$2:$D$81),Orders!$H$2:$H$81,0)
```

Task 8 (18 pts) — Analysis!L2, L3, L4, L5, L6, M2, M3, M4, M5, N2, N3, N4, N5
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=IFERROR(IF(L2>$L$6*1.1,"Gold",IF(L2>$L$6*0.9,"Silver","Bronze")),"Error")
```