

Grading Rubric: Verdant Grounds — Job Costing Workbook

8 tasks | 100 points total

Task Requirements

#	Pts	Location	Requirement	Automated checks
1	8	Analysis!B2	On the 'Analysis' sheet, first create a Named Range called 'LaborCost' that refers to the calculated labor cost for every job. Labor cost per job = HoursWorked × HourlyRate × CrewSize (columns I, J, and H on the Jobs sheet). Then, in cell B2 of the 'Analysis' sheet, use a SUM formula referencing the	sheet exists: 'Analysis' named range: 'LaborCost' formula in cell: Analysis!B2 uses SUM calculated, not typed: Analysis!B2
2	7	Analysis!B3	In cell B3 of the 'Analysis' sheet, use a COUNTIF formula to count the number of jobs in the 'Jobs' sheet where the PaymentStatus (column M) is 'Overdue'. (Skills: countif)	sheet exists: 'Analysis' formula in cell: Analysis!B3 uses COUNTIF calculated, not typed: Analysis!B3
3	12	Analysis!B6, B7, B8, B9	In cells B6, B7, B8, and B9 of the 'Analysis' sheet, use SUMIF formulas to calculate the total InvoiceAmount (column L of the 'Jobs' sheet) for each quarter: Q1 in B6, Q2 in B7, Q3 in B8, and Q4 in B9. The Quarter field is in column E of the 'Jobs' sheet. Use absolute references for the criteria ran	sheet exists: 'Analysis' formula in cell: Analysis!B6 uses SUMIF formula in cell: Analysis!B7 uses SUMIF formula in cell: Analysis!B8 uses SUMIF formula in cell: Analysis!B9 uses SUMIF calculated, not typed: Analysis!B6, B7, B8, B9
4	12	Jobs!O2	In cell O2 of the 'Jobs' sheet, enter a formula using IFERROR wrapped around VLOOKUP to retrieve the ContractTier (column C of 'SiteDirectory') for each job, matching on JobSiteID (column N of 'Jobs' against column A of 'SiteDirectory'). If no match is found, display the text 'Unknown'. Fill the for	sheet exists: 'Jobs' formula in cell: Jobs!O2 uses IFERROR, VLOOKUP calculated, not typed: Jobs!O2
5	12	Jobs!P2	In cell P2 of the 'Jobs' sheet, write a nested IF formula to assign a Profitability Rating to each job based on the profit margin. First calculate the gross profit as InvoiceAmount (L) minus MaterialCost (K) minus labor cost (CrewSize H × HoursWorked I × HourlyRate J). Then divide gross profit by In	sheet exists: 'Jobs' formula in cell: Jobs!P2 uses IF calculated, not typed: Jobs!P2
6	12	Analysis!B12	In cell B12 of the 'Analysis' sheet, use an XLOOKUP formula to find the SiteName from the 'SiteDirectory' sheet for the job site with JobSiteID 'SITE-042'. Look up 'SITE-042' in column A of 'SiteDirectory' and return the corresponding value from column B (SiteName). If not found, return 'Site Not Fo	sheet exists: 'Analysis' formula in cell: Analysis!B12 uses XLOOKUP calculated, not typed: Analysis!B12

#	Pts	Location	Requirement	Automated checks
7	17	Dashboard!A1	On the 'Dashboard' sheet, create a PivotTable using the data from the 'Jobs' sheet (A1:N81). Place the PivotTable with its top-left corner at cell A1 of the 'Dashboard' sheet. Configure the PivotTable so that Region (column B) is the Row field, JobType (column C) is the Column field, and the Values	sheet exists: 'Dashboard' pivot table present on 'Dashboard' chart present: BarChart on 'Dashboard' conditional formatting on 'Dashboard'
8	20	Analysis!B15	In cell B15 of the 'Analysis' sheet, write a formula using INDEX and MATCH (with IFERROR for error handling) to find the InvoiceAmount (column L of 'Jobs') for the job that has the single highest MaterialCost (column K of 'Jobs') across all 80 rows. The formula should first identify which row contain	sheet exists: 'Analysis' formula in cell: Analysis!B15 uses INDEX, MATCH, IFERROR, MAX calculated, not typed: Analysis!B15

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) — Analysis!B2

=SUM(LaborCost)

Task 2 (7 pts) — Analysis!B3

=COUNTIF(Jobs!M2:M81, "Overdue")

Task 3 (12 pts) — Analysis!B6, B7, B8, B9

=SUMIF(Jobs!\$E\$2:\$E\$81, "Q1", Jobs!\$L\$2:\$L\$81)

Task 4 (12 pts) — Jobs!O2

=IFERROR(VLOOKUP(N2, SiteDirectory!\$A\$2:\$E\$81, 3, FALSE), "Unknown")

Task 5 (12 pts) — Jobs!P2

=IF((L2-K2-(H2*I2*J2))/L2>0.40, "High", IF((L2-K2-(H2*I2*J2))/L2>0.20, "Medium", "Low"))

Task 6 (12 pts) — Analysis!B12

=XLOOKUP("SITE-042", SiteDirectory!A2:A81, SiteDirectory!B2:B81, "Site Not Found")

Task 8 (20 pts) — Analysis!B15

=IFERROR(INDEX(Jobs!L2:L81, MATCH(MAX(Jobs!K2:K81), Jobs!K2:K81, 0)), "N/A")