



Excel 2021 In Practice - Ch 3 Independent Project 3-4

Independent Project 3-4

For this project, you create a column chart to graph profit margins for Classic Gardens and Landscapes. You also create a line chart to illustrate a break-even point in units for new catalog items.

[[Student Learning Outcomes 3.1, 3.2, 3.3, 3.4, 3.6](#)]

File Needed: ***ClassicGardens-03.xlsx*** (Available from the Start File link.)

Completed Project File Name: ***[your name]-ClassicGardens-03.xlsx***

Skills Covered in This Project

- Create a chart object.
- Size and position a chart object.
- Edit and format chart elements.
- Edit the source data for a chart.
- Build a line chart object.
- Edit axis labels.
- Position the legend.
- Add and format gridlines in a chart.

Steps to complete This Project

Mark the steps as checked when you complete them.

- ☐ Open the ***ClassicGardens-03*** start file. If the workbook opens in *Protected View*, click the **Enable Editing** button so you can modify it. The file will be renamed automatically to include your name. Change the project file name if directed to do so by your instructor, and save it.
- ☐ Create a **Clustered Column** chart object for cells **A4:G9**.
- ☐ Move the chart object so that its top-left corner is at cell **A12**. Size the bottom of the chart to reach cell **H30**.
- ☐ Edit the chart title to display **CGL Gross Margin in Dollars** on the first line. On the second line, type **By Department**. (In the *Formula* bar, press **option+Enter** to start a new line.)
- ☐ Apply chart **Style 14** to the chart.
- ☐ Apply a **1 pt Black, Text 1** (second column) outline to the chart area.
- ☐ Display the primary minor horizontal axis gridlines. Format the major value axis gridlines with a **Black, Text 1** outline color. Do not change the color for the minor gridlines. (The *Chart Elements* drop-down list identifies the gridlines as *Vertical (Value) Axis* because they track values on the vertical axis.)
- ☐ Resize the data range to remove the *Design Consulting* data series from the chart ([Figure 3-84](#)).
- ☐ Select cell **A1** and click the **BreakEven** sheet tab.
- Review break-even formulas and build the data source for a line chart.



- a. ☐ Select cell **B8**. The margin per unit is calculated by subtracting the variable cost from the sales price.
- b. ☐ Select cell **B10**. The formula divides the fixed cost by the sales price minus the variable cost (margin per unit). The results are rounded to show no decimal places.
- c. ☐ Review the references and formulas in row **15** to build a table for the chart and copy the formulas to row **24**.
- d. ☐ Select cell **B5** and type **200**. Verify that at this price, the break-even point is 200 units. This is the level at which the profit covers all costs.

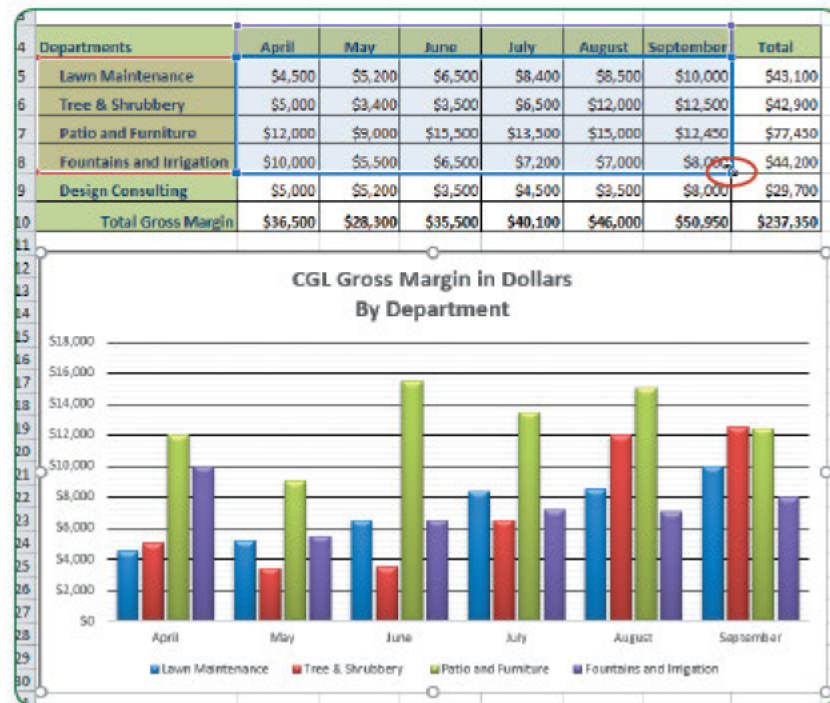


Figure 3-84 Dragging the resize pointer

11. Create a line chart.

- a. ☐ Select cells **B14:C24** and **E14:F24**.
- b. ☐ Create a **2-D Line** chart with markers for each line.
- c. ☐ Position the chart object to start at cell **A26** and to reach cell **H45**.

12. Edit the source data.

- a. ☐ Click the **Select Data** button [Chart Design tab, Data group].
- b. ☐ Click in the *Horizontal (Category) Axis Labels* box (Figure 3-85). Excel has determined a scale for the category labels, but you can override those results.

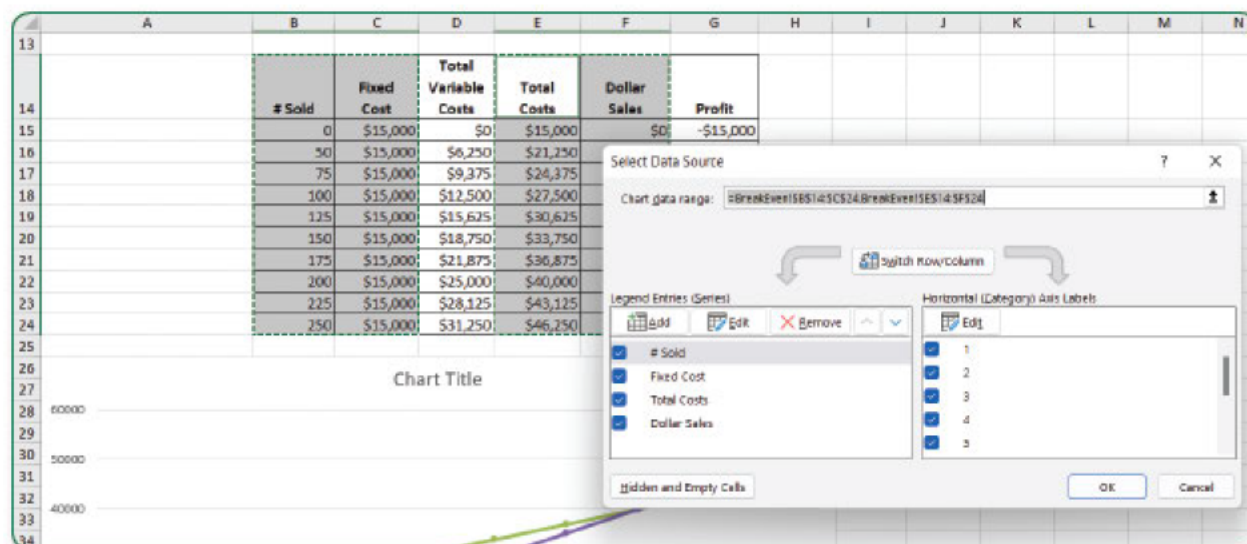


Figure 3-85 Axis labels reset override default number scale

- c. ☐ Select cells **B15:B24** for the *Axis label range*.
 - d. ☐ Click **# Sold** in the *Legend Entries (Series)* area to select it and click the **minus sign (-)** button to remove it and click **OK**. (Figure 3-86). These are category labels and should not be plotted as a line.
13. ☐ Edit the chart title to display **Break Even in Units**.

14. Display and format chart elements.

- a. ☐ Use the **Add Chart Element** button [Chart Design tab, Chart Layouts group] to position the legend at the top.
- b. ☐ Display the primary major vertical gridlines.
- c. ☐ Format both vertical and horizontal gridlines with **Black, Text 1, Lighter 50%** for the **Shape Outline**.
- d. ☐ Apply a **1 pt Black, Text 1** outline for the chart area.

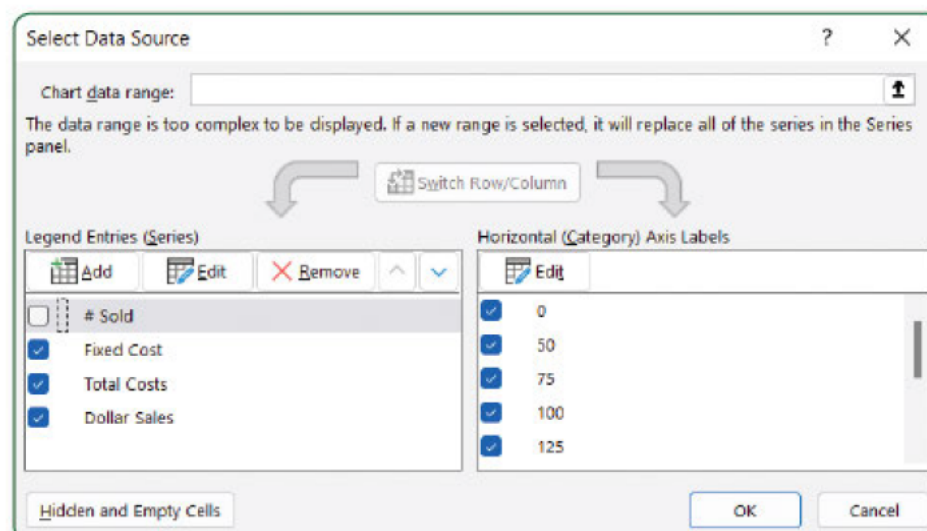


Figure 3-86 “Sold” column deselected to remove line

- e. ☐ Apply an **Offset: Bottom Right** shadow effect to the plot area.
15. ☐ Change the sales price to **\$225** (cell **B5**).
16. Complete worksheet formatting.
- ☐ Select cells **A1:A3** and change font size to **16**.
 - ☐ Select cells **A1:H3** and center the cells across the selection.
 - ☐ Apply a bottom border to cells **A3:H3**.
 - ☐ Select cell **A1**.
 - ☐ Set the page for landscape orientation, center the page horizontally, and scale it to fit one page.
17. ☐ Save and close the workbook ([Figure 3-87](#)).

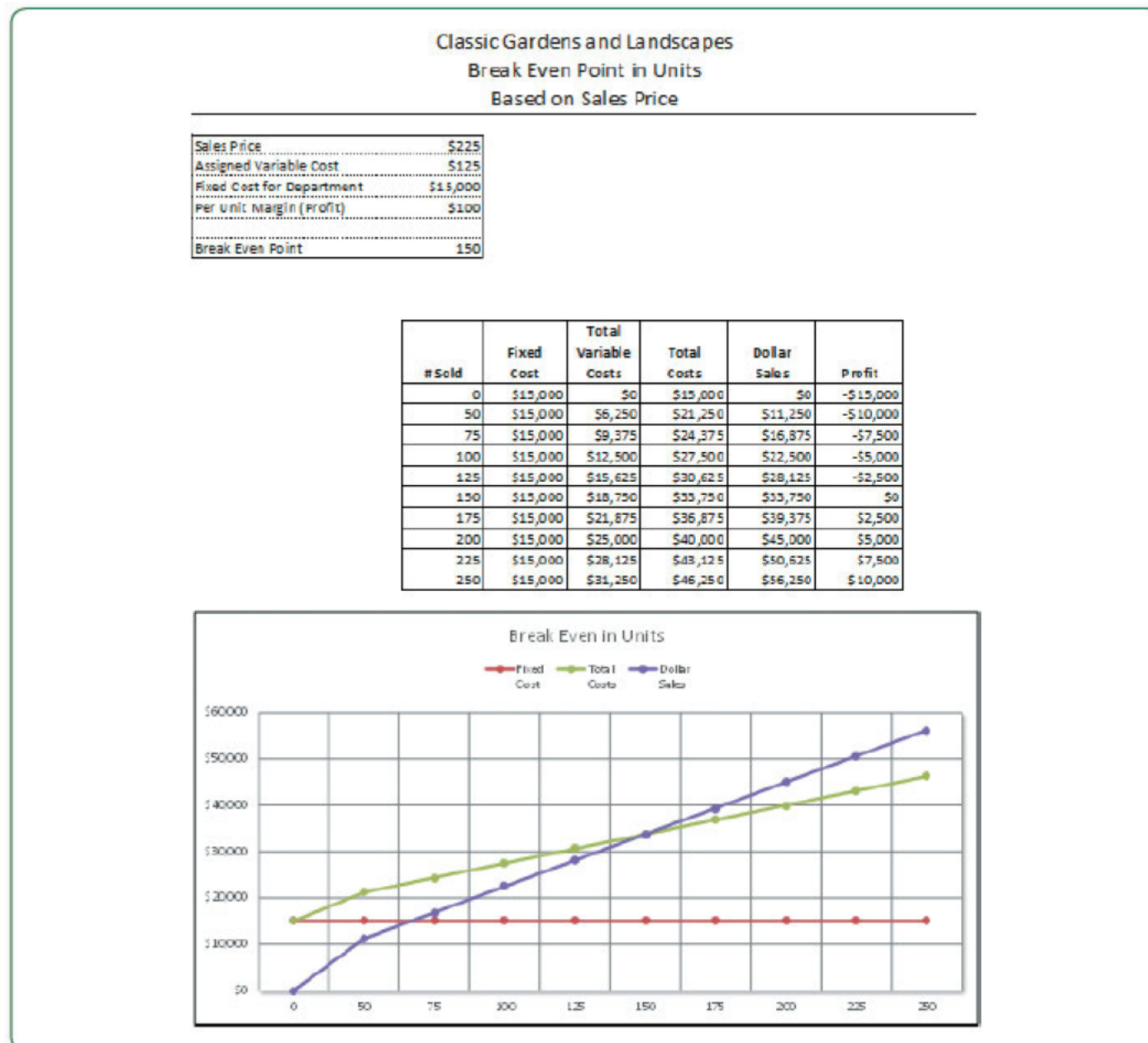


Figure 3-87 Excel 3-4 completed

18. ☐ Upload and save your project file.
19. ☐ Submit file for grading.