# Excel Worksheet Case Study 4.1

1. Grab your own copies of   
   Wyndor Glass from Week1  
   CaseStudy4\_1 from Week2
2. Open Wyndor Glass by double-clicking the icon, then open from menu CaseStudy4\_1. Choose OfficeButton -> Convert. Then close CaseStudy4\_1 and open it again.
3. Now examine Wyndor Glass via View tab -> Switch Windows -> Wyndor Glass.
4. Examine the coloring convention. We will adhere to this for uniform interfaces.
   1. Data input cells: light blue.
   2. Calculated cells: yellow and boxed.
   3. Answer: orange and boxed.
   4. Informational: grey and boxed.
5. Select the range B4:C13 and click on Home tab -> Cell Styles -> New Cell Style. Name the style as “Informational”. Then click Format -> Border -> Outline, then Fill -> (Choose light gray – box (3,1)). Then apply the new cell style to the selected range by clicking Cell Style -> Informational.
6. Next select range F5:G14 and create the style “DataInput” with light blue (2,9). Apply it to the selected range and all other ranges of input data, i.e., Q5:R15.
7. Highlight range I16:O16 and create the style “Calculated” with outline border and yellow fill. Now apply it to the selected range.
8. At H4, enter the title “Profit” in bold. Then apply the style Calculated to range H5:H15.
9. At P4, enter the title “ProductTotals” in bold. Then apply the style Calculated to range P5:P15.
10. At H22, enter the title “TotalProfit”. Then create the style “Answer” with orange fill and outline border.
11. Click Formulas tab -> Name Manager, then check the range tables and note what named ranges are not yet really named . Fix this by defining the correct ranges.
12. Fill in missing upper limits by something too big like 100000. Fill in lower limits with 0s.
13. In H5, fill in formula =F5-G5-SUMPRODUCT(I5:O5,PricePerYard), and copy it downward over the Profit range.
14. In I16, fill in formula =SUMPRODUCT(I5:I15,ProductTotals), and copy it across the MaterialTotals range.
15. (Inserted) Drag the Range Name and Cells informational columns down three cells.
16. In the first new informational row, fill in “Product Totals” and P5:P15. Check in the (Formulas ->) Name Manager that this named range already exists.
17. In the second new informational row, fill in “Profit” and H5:H15. Open the Name Manager and create the named range “Profit” for the Range H5:H15.
18. In the third new informational row, fill in “TotalProfit” and I22. Open the Name Manager and create the named range “TotalProfit” for the Range I22.
19. In I22, fill in formula =SUMPRODUCT(Profit,ProductTotals) – 3560000.
20. You will need to follow the Notes to fill in the rest of the worksheet. However, examine the comments in items 5 and 6 and observe that you will have to add constraints to your problem that basically say SB<=SC and CT<CM.
21. Once you are done, apply the Solver. Click on the Data tab and Solver should be a selection if you have installed it.