

Worksheet1 – Your Name

	A	B	C	D	E	F	G
1	Lee's Small Business						
2			2020	2021	2022	2023	2024
3	Income						
4	Gross Sales		\$525,000	\$551,250	\$578,813	\$607,753	\$638,141
5							
6	Expenses						
7	Salaries		\$205,000	\$216,275	\$228,170	\$240,719	\$253,959
8	Building Cost		\$45,250	\$46,155	\$47,078	\$48,020	\$48,980
9	Insurance Cost		\$28,000	\$28,840	\$29,705	\$30,596	\$31,514
10	Supply Cost		\$57,750	\$60,638	\$63,669	\$66,853	\$70,195
11	All Other		\$67,000	\$69,345	\$71,772	\$74,284	\$76,884
12	Total Expense		\$403,000	\$421,253	\$440,395	\$460,472	\$481,533
13							
14	Income Before Tax		\$122,000	\$129,998	\$138,418	\$147,281	\$156,608
15	Tax		\$21,960	\$23,400	\$24,915	\$26,511	\$28,189
16	Income after Tax		\$100,040	\$106,598	\$113,502	\$120,770	\$128,418
17							
18	Profit Sharing/Bonus		\$5,000	\$5,000	\$10,000	\$10,000	\$10,000
19							
20	Net Profit		\$95,040	\$101,598	\$103,502	\$110,770	\$118,418
21							
22	Assumptions			Projected Net Profit 2021 to 2024:			\$434,289
23	Sales Increase	5.00%					
24	Salary Increase	5.50%					
25	Building Cost Increase	2.00%					
26	Insurance	3.00%					
27	Supply Cost	11.00%					
28	All Other	3.50%					
29	Tax rate	18.00%					

1. From the Assignments page, select Lab 3, Lab 3 instructions, you will find the lab 3 data file link. Click the link and save the data file to your PC, open the file and save it with the file name - Key Assessment-Your last name.
2. Format the titles (row 1 & 2) of the worksheet. Merge and center the title on the first row. Apply formats and colors to the headings to give it a professional look. Your name should be on the first row as well as the Sheet1 tab.
3. Calculate the Gross Sales (row 4) - Use a formula to calculate the data for the next year. Use the first year's Gross Sales (D4), increase it with the percentage % of Sales Increase (B23). e.g. $D4=C4*\$B23+C4$. Remember to use the absolute reference (with dollar signs) for the percentage (%) (\$B23) in the formula so the cell reference will not change when you copy and paste the formula to other cells. Verify the data for D4 is correct. Copy the formula from D4 through G4.

4. Calculate the Salaries, Building Cost and the Insurance Cost and All Other (row 7, 8, 9 and 11) – Use the same principles as Gross Sales (row 4). The next year's data is increased from the previous year base on the percentage of increase for that item, see the percentage of increase of each item on the column B (B23 to B29). Verify the results are correct before you move on to the next step.
5. Calculate the Supply Cost (row 10) – the instructions state that: "Supply cost: 11% of gross sales" and "supply costs remain at 11%". e.g. $C10=C4*\$B27$. Always use the cell references in the formulas. Do not type 11%. Verify the data for C10 is correct. Copy the formula from C10 through G10.
6. Calculate the Total Expense (row 12) – Add the value of the 5 items under the Expenses. e.g. $C12=\text{SUM}(C7:C11)$.
7. Calculate the Income Before Tax (row 14) – Gross Sales subtracts Total Expense. e.g. $C14=C4-C12$.
8. Calculate the Tax (row 15) - Income Before Tax * Tax rate (\$B29). e.g. $C15=C14*\$B29$.
9. Calculate the Income after Tax (row 16) - Income Before Tax subtracts Tax. e.g. $C16=C14-C15$.
10. Calculate the Profit Sharing/Bonus (row 18) – the instructions state that – "you will share \$10,000 with them whenever your profit exceeds \$110,000 and \$5,000 if it does not". Use the IF Function for this calculation. The syntax for the IF function is: $\text{IF}(\text{condition}, [\text{value_if_true}], [\text{value_if_false}])$. e.g. $C18=\text{IF}(C16>110000,10000,5000)$. Verify the data for C18 is correct. Copy the formula from C18 through G18.
11. Use Conditional format feature to format the Profit Sharing/Bonus data (C18 to G18) - the instructions state that – "Have the \$10,000 bonus cell show with a red background and the \$5,000 bonus show a green background. {Note: this shading needs to change if the bonus value changes}". You will use conditional formatting feature for this task. Select the Profit Sharing cells (C18 to G18), click Conditional Formatting down arrow, and select New Rule. From the New Formatting Rule dialog box, select the second option - Format only cells that Contain. To the right side of Cell Value, change "between" to "equal to" on the second box, type 5000 on the third box, Click Format... click Fill tab, select a green fill color, click OK. Repeat step #11 to add a second New Rule. You will set the Cell Value "equal to" 10000, and use a red fill color. Verify the colors are correct for the Profit Sharing/Bonus data.
12. Calculate the Net Profit (row 20) - Income after Tax subtracts Profit Sharing/Bonus. e.g. $C20=C16-C18$.
13. Calculate the Projected Net Profit (G22) – Add together the last 4 years of Net Profit. e. g. $G22=\text{SUM}(D20:G20)$.
14. Format the worksheet with colors, \$ sign with no decimal places, % set to two decimal places, merge and center the title, etc. to give it a professional look.
15. Make sure each worksheet could fit into one page with an appropriate heading on each sheet. To fit the worksheet into one sheet - from Page Layout tab, click the Dialog Box Launcher arrow in the Page Setup group (at the bottom right corner), click Page tab, and select the radio button - Fit to: 1 page.
16. Verify all data and format are correct; copy the first sheet to Sheet2, Sheet3 and Sheet4.
17. Rename Worksheet1 with your name, Worksheet2 to What-IF, Worksheet3 to Goal Seek, Worksheet4 to Charts - right click on each tab, select Rename. And color all the tabs - right click on each tab, select Tab Color and select any color.

Worksheet2 – What-If

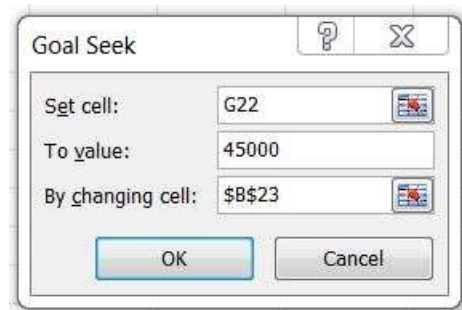
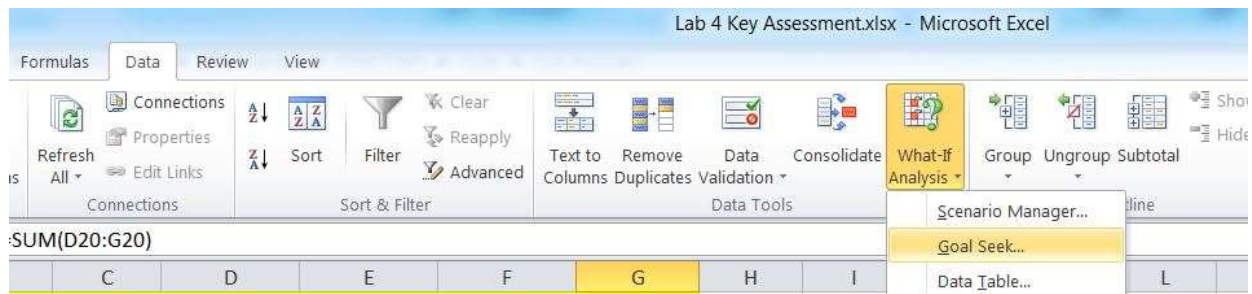
	A	B	C	D	E	F	G
1	Lee's Small Business						
2			2020	2021	2022	2023	2024
3	Income						
4	Gross Sales		\$525,000	\$556,500	\$589,890	\$625,283	\$662,800
5							
6	Expenses						
7	Salaries		\$205,000	\$213,200	\$221,728	\$230,597	\$239,821
8	Building Cost		\$45,250	\$46,155	\$47,078	\$48,020	\$48,980
9	Insurance Cost		\$28,000	\$28,840	\$29,705	\$30,596	\$31,514
10	Supply Cost		\$57,750	\$61,215	\$64,888	\$68,781	\$72,908
11	All Other		\$67,000	\$69,345	\$71,772	\$74,284	\$76,884
12	Total Expense		\$403,000	\$418,755	\$435,171	\$452,278	\$470,107
13							
14	Income Before Tax		\$122,000	\$137,745	\$154,719	\$173,005	\$192,693
15	Tax		\$21,960	\$24,794	\$27,849	\$31,141	\$34,685
16	Income after Tax		\$100,040	\$112,951	\$126,869	\$141,864	\$158,008
17							
18	Profit Sharing/Bonus		\$5,000	\$10,000	\$10,000	\$10,000	\$10,000
19							
20	Net Profit		\$95,040	\$102,951	\$116,869	\$131,864	\$148,008
21							
22	Assumptions			Projected Net Profit 2021 to 2024:			\$499,693
23	Sales Increase	6.00%					
24	Salary Increase	4.00%					
25	Building Cost Increase	2.00%					
26	Insurance	3.00%					
27	Supply Cost	11.00%					
28	All Other	3.50%					
29	Tax rate	18.00%					

1. The instructions state that – “project what your profits may be if the sales increase is 6% and salaries increase only 4%”. You will use What-IF analysis for this task.
2. Replace the data of B23 to 6.00% and B24 to 4.00%. You should see the change of values on many cells that associate with the change of these two cells.
3. Verify the color on D18 has been changed to Red. Verify the Projected Net Income (G22) has been changed to \$499,693.
4. Add a fill color for B23 and B24.

Worksheet3 – Goal Seek

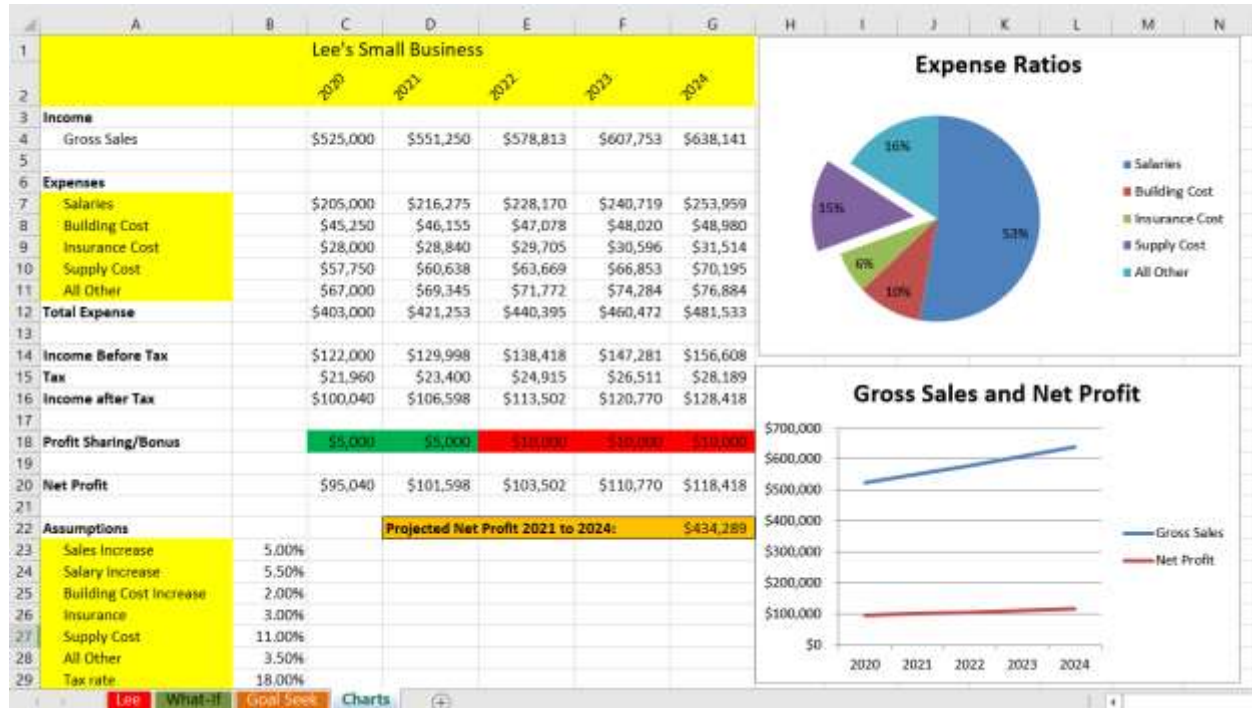
	A	B	C	D	E	F	G
1	Lee's Small Business						
2			2020	2021	2022	2023	2024
3	Income						
4	Gross Sales		\$525,000	\$553,193	\$582,901	\$614,203	\$647,187
5							
6	Expenses						
7	Salaries		\$205,000	\$216,275	\$228,170	\$240,719	\$253,959
8	Building Cost		\$45,250	\$46,155	\$47,078	\$48,020	\$48,980
9	Insurance Cost		\$28,000	\$28,840	\$29,705	\$30,596	\$31,514
10	Supply Cost		\$57,750	\$60,851	\$64,119	\$67,562	\$71,191
11	All Other		\$67,000	\$69,345	\$71,772	\$74,284	\$76,884
12	Total Expense		\$403,000	\$421,466	\$440,845	\$461,182	\$482,528
13							
14	Income Before Tax		\$122,000	\$131,727	\$142,056	\$153,021	\$164,659
15	Tax		\$21,960	\$23,711	\$25,570	\$27,544	\$29,639
16	Income after Tax		\$100,040	\$108,016	\$116,486	\$125,477	\$135,020
17							
18	Profit Sharing/Bonus		\$5,000	\$5,000	\$10,000	\$10,000	\$10,000
19							
20	Net Profit		\$95,040	\$103,016	\$106,486	\$115,477	\$125,020
21							
22	Assumptions			Projected Net Profit 2021 to 2024:			\$450,000
23	Sales Increase	5.37%					
24	Salary Increase	5.50%					
25	Building Cost Increase	2.00%					
26	Insurance	3.00%					
27	Supply Cost	11.00%					
28	All Other	3.50%					
29	Tax rate	18.00%					

1. The instructions state that – “determine what increase in sales would be required to have a cumulative profit over the next 4 years of \$450,000”. You will use Goal Seek analysis to complete this task.
2. From Data tab, click What-If Analysis dropdown list, select Goal Seek.... A Goal Seek dialog box will open containing 3 boxes. You will set the value for Projected Net Income (G22) to 45000 by changing the Sales increase % (B23). Type the data for the 3 boxes: Box1 – Set cell: **G22**, Box 2 – To Value: **450000**, Box 3 – By changing cell: **B23**. Click OK twice. The 3 highlighted words above are the words you will type for the 3 Goal Seek boxes. Do not type comma for the 450000.



3. Verify the data on B23 has been changed by using the Goal Seek feature from step 2. Do not type 5.37%, you will not get the correct answers for the other cells. The correct value for B23 contains more than 2 decimal places even though it displays only 2 decimal places.
4. Add a fill color for B23.

Worksheet4 – Charts



1. The instructions state that – “create two charts. The first is a pie chart [Use Worksheet4 as the location for the chart objects] that shows the ratio of expenses for the last year of the 4 projected years. The second chart will be a line chart that plots gross sales and net profit for the current and projected years”.
2. To create the pie chart, you will need to select the data from (A7 to A11) and (G7 to G11). The column headings from A7 to A11 will display as the legend of the pie chart. Hold down the Control key to select multiple non-adjacent data ranges. Select (A7 to A11) and (G7 to G11). Click Insert tab, click Pie, and select the first Pie chart. For the Pie Chart, ‘explode’ the slice for supplies and have the slices show just percentages. Add a chart title above the chart.
3. To create the line chart, you will need to select the data from row 2, row 4 and row 20. The headings from A2 to G2 will display as the X-axis labels for the line chart. Hold down the Control key to select three non-adjacent data ranges. Select (A2 to G2), (A4 to G4) and (A20 to G20). Click Insert tab, click Line, and select the first Line chart. Add a chart title above the chart.
4. Use the alignment tool from the tool bar to create the indentation for the Gross Sales. If you use the blank spaces to create the indentation, the legend of the line chart will not align correctly.
5. Make sure each worksheet fits into one page with an appropriate heading on each sheet. To fit the worksheet into one page - from Page Layout tab, click the Dialog Box Launcher arrow in the Page Setup group (at the bottom right corner), click Page tab, and select the radio button - Fit to: 1 page.
6. Verify all sheets are correctly done; name the Excel file Key Assessment-Your last name. Submit the Excel file through Canvas.