FIT1013 – Digital Futures: IT for Business
Tutorial 1 – Calculating Data with Formulas and Functions

Objectives
- Make workbooks user friendly
- Use/Write Excel functions
- Perform what-if analysis
- Interpret Error Values
- Understand Excel cell references

Exercise 1
Download the Excel file Balance.xlsx

Current Assets	Cell	Value
Cash	B6	$123,000
Accounts Receivable	B7	$75,000
Inventories	B8	$58,000
Prepaid Insurance	B9	$15,000
Long-Term Investments	**Cell**	**Value**
Available Securities	B12	$29,000
Tangible Assets	**Cell**	**Value**
Land	B15	$49,000
Building and Equipment	B16	$188,000
Less Accumulated Depreciation	B17	-$48,000
Intangible Assets	**Cell**	**Value**
Goodwill	B20	$148,000
Other Assets	B22	$14,000
Current Liabilities	**Cell**	**Value**
Accounts Payable	F6	$62,000
Salaries	F7	$14,000
Interest	F8	$12,000
Notes Payable	F9	$38,000
Long-Term Liabilities	**Cell**	**Value**
Long-Term Notes Payable	F12	$151,000
Mortgage	F13	$103,000
Stockholders' Equity	**Cell**	**Value**
Capital Stock	F16	$178,000
Retained Earnings	F17	$98,000
Comprehensive Income/Loss	F18	-$5,000

Figure 1

Figure 2, which is at the end of the exercise, shows the worksheet as it should appear at the end of the exercise.

Scott Kahne Tool & Die Cheryl Hippe is a financial officer at Scott Kahne Tool & Die, a manufacturing company located in Mankato, Minnesota. Every month the company publishes a balance sheet, a report that details the company's assets and liabilities. Cheryl asked you to create the workbook with the text and formulas for this report. *Figure 1* provides the input values for the Balance Sheet. Complete the following:

1. Open the **Balance** workbook, and then save the workbook as **Balance Sheet**.

2. In the Documentation sheet, enter your name and the date.

3. Go to the Balance Sheet worksheet. Set the font size of the title in cell A1 to 28 points.

4. In cell A2, enter the text **Statement for March 2017**.

5. Set the width of columns A and E to 30 characters. Set the width of columns B, C, F, and G to 12 characters. Set the width of column D to 4 characters. *(Hint:* Hold down the Ctrl key as you click the column headings to select both adjacent and nonadjacent columns.)

6. Set the font size of the text in cells A4, C4, E4, and G4 to 18 points.

7. Set the font size of the text in cells A5, E5, A11, E11, A14, El5, A19, E20, and A24 to 14 points.

8. Enter the values shown in Figure 1 in the specified cells.

9. In cell C9, enter a formula to calculate the sum of the Current Assets in the range B6:B9.

10. In cell C12, enter a formula to display the value of B12.

11. In cell C17, enter a formula to calculate the sum of the Tangible Assets in the range B15:B17.

12. In cells C20 and C22, enter formulas to display the values of cells B20 and B22, respectively.

13. In cell C24, enter a formula to calculate the total assets in the balance sheet by adding cells C9, C12, C17, C20, and C22. Set the font size of the cell to 14 points.

14. In cell G9, enter a formula to calculate the sum of the Current Liabilities in the range F6:F9.

15. In cell G13, enter a formula to calculate the sum of the Long-Term Liabilities in the range F12:F13.

16. In cell G18, enter a formula to calculate the sum of the Stockholders' Equity in the range F16:F18.

17. In cell G20, calculate the Total Liabilities and Equity for the company by adding the values of cells G9, G13, and G18. Set the font size of the cell to 14 points.

18. Check your calculations. In a balance sheet the total assets (cell C24) should equal the total liabilities and equity (cell G20).

19. Set the page layout orientation to landscape and the Balance Sheet worksheet to print to one page for both the width and height.

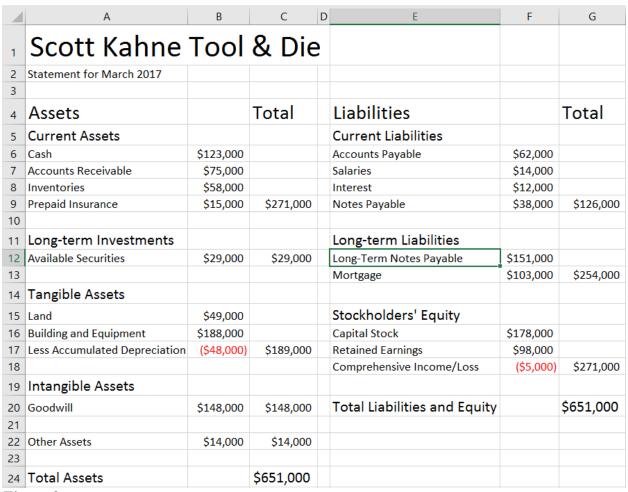20. Preview the worksheet on the Print screen in Backstage view, and then save and close the workbook.

	A	B	C	D	E	F	G
1	Scott Kahne Tool & Die						
2	Statement for March 2017						
3							
4	Assets		Total		Liabilities		Total
5	Current Assets				Current Liabilities		
6	Cash	$123,000			Accounts Payable	$62,000	
7	Accounts Receivable	$75,000			Salaries	$14,000	
8	Inventories	$58,000			Interest	$12,000	
9	Prepaid Insurance	$15,000	$271,000		Notes Payable	$38,000	$126,000
10							
11	Long-term Investments				Long-term Liabilities		
12	Available Securities	$29,000	$29,000		Long-Term Notes Payable	$151,000	
13					Mortgage	$103,000	$254,000
14	Tangible Assets						
15	Land	$49,000			Stockholders' Equity		
16	Building and Equipment	$188,000			Capital Stock	$178,000	
17	Less Accumulated Depreciation	($48,000)	$189,000		Retained Earnings	$98,000	
18					Comprehensive Income/Loss	($5,000)	$271,000
19	Intangible Assets						
20	Goodwill	$148,000	$148,000		Total Liabilities and Equity		$651,000
21							
22	Other Assets	$14,000	$14,000				
23							
24	Total Assets		$651,000				

Figure 2

Exercise 2
Download the Excel file Homes.xlsx

The Figure 3 which is at the end of the exercise shows the worksheet as it should appear at the end of the exercise.

Homes of *Dreams* Larry Helt is a carpenter and a woodcrafter in Coventry, Rhode Island, who loves to design and build custom dollhouses. He started his business, Homes of Dreams, a few years ago and it has expanded into a very profitable sideline to his ongoing carpentry work. Larry wants to create a shipping form that will calculate the cost for the purchased items, including taxes, shipping, and handling. Larry already designed the worksheet, which includes a table of shipping rates, shipping surcharges, and items sold by Homes of Dreams. He asks you to complete the worksheet. Complete the following:

1. Open the Homes workbook, and then save the workbook as **Homes of Dreams**.

2. In the Documentation sheet, enter your name and the date.

3. Go to the Order Form worksheet.

4. In cell B2l, enter the Item ID **DH007**.

5. In cell C21, enter the VLOOKUP function with an exact match to return the name of the item referenced in cell B21. Reference the lookup table in the range M4:O50 using an absolute cell reference. Return the value from the second column of the table.

6. In cell E21, enter the VLOOKUP function with an exact match to return the price of the item referenced in cell B21. Use an absolute reference to the lookup table in the range M4:O50. Return the value from the third column of the table.

7. In cell F21, enter **1** as the quantity of the item ordered.

8. In cell G21, calculate the price of the item multiplied by the quantity ordered.

9. Revise your formulas in cells C21, E21, and G21, nesting them within an IF formula. For each cell, test whether the value of cell B21 is not equal to "" (a blank). If it is not, return the value of the VLOOKUP function in cells C21 and E21 and the calculated value in cell G21. Otherwise, those cells should return a blank ("") value.

10. Use AutoFill to copy the formulas in cells C21, E21, and G21 through row 30 in the order items table.

11. In row 22, enter **BD002** as the Item ID and **3** as the quantity of items ordered. Verify that the formulas you created automatically enter the name, price, and charge for the 1tem.

12. In rows 23 through 25, enter **1** order for item **BH003**, **1** order for item **DR002**, and **1** order for item **KR009**.

13. In cell G32, calculate the sum of the item charges from all possible orders.

14. In cell G33, calculate the sales tax on the order, which is equal to the subtotal multiplied by the tax rate (entered in cell J9).

15. In cell Cl5, enter a function to insert the current date whenever the workbook is opened.

16. In cell Cl6, enter **3 Day** as the type of delivery for this order.

17. In cell C17, calculate the number of working days it will take to ship the order by inserting a VLOOKUP function using an exact match lookup. Use the delivery type in cell C16 as the lookup value, and use the shipping data in the range I4:K7 as the lookup table. Return the value from the third column of the table.

18. In cell C18, estimate the date of delivery. Use cell C15 as the start date and cell C17 as the number of working days after the start date.

19. The shipping and handling fee is based on the delivery method (Standard, 3 Day, 2 Day, or Overnight). In cell G34, calculate the shipping and handling fee for the order using an exact match lookup with the data in the range I4:J7. Use the delivery method specified in cell C16 to find the corresponding shipping and handling fee in the Delivery table.

20. In cell G36, calculate the sum of the merchandise subtotal, sales tax, and shipping and handling fee.
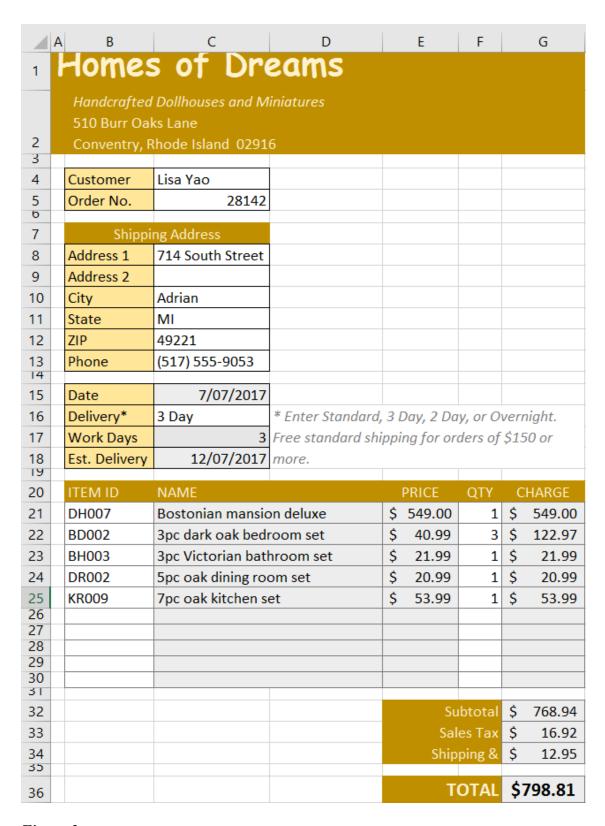
21. Save the workbook.

Homes of Dreams

Handcrafted Dollhouses and Miniatures
510 Burr Oaks Lane
Conventry, Rhode Island 02916

Customer	Lisa Yao	
Order No.	28142	

Shipping Address	
Address 1	714 South Street
Address 2	
City	Adrian
State	MI
ZIP	49221
Phone	(517) 555-9053

Date	7/07/2017	
Delivery*	3 Day	* Enter Standard, 3 Day, 2 Day, or Overnight.
Work Days	3	Free standard shipping for orders of $150 or
Est. Delivery	12/07/2017	more.

ITEM ID	NAME	PRICE	QTY	CHARGE
DH007	Bostonian mansion deluxe	$ 549.00	1	$ 549.00
BD002	3pc dark oak bedroom set	$ 40.99	3	$ 122.97
BH003	3pc Victorian bathroom set	$ 21.99	1	$ 21.99
DR002	5pc oak dining room set	$ 20.99	1	$ 20.99
KR009	7pc oak kitchen set	$ 53.99	1	$ 53.99
		Subtotal	$	768.94
		Sales Tax	$	16.92
		Shipping &	$	12.95
		TOTAL		$798.81

Figure 3