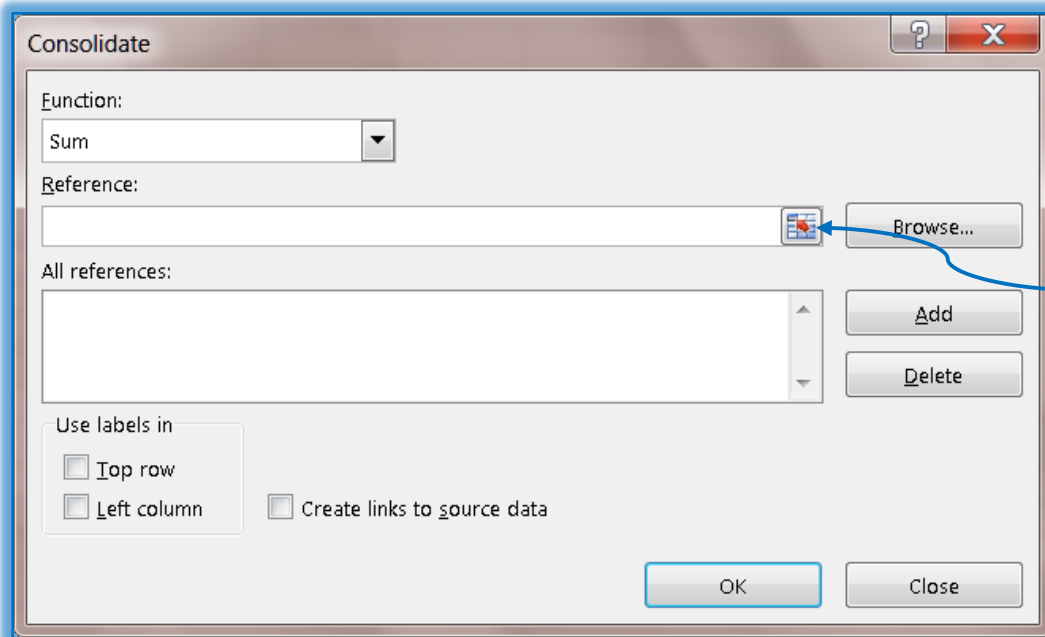
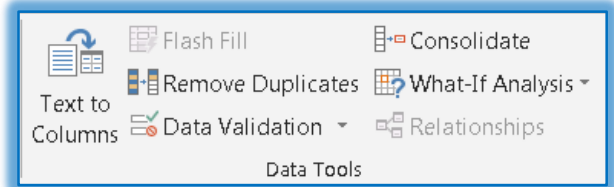


DATA CONSOLIDATION

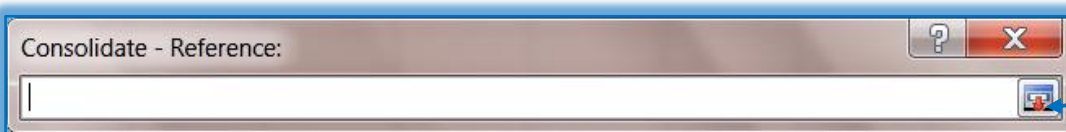
This option is used to define ranges of cells from multiple worksheets and have Excel summarize the data into a single worksheet. With the Consolidate command, it is possible to use several functions to consolidate data such as SUM, AVERAGE, MAX, or MIN. Prior to consolidating data, it is a good idea to open and arrange on-screen the worksheets or workbooks that contain the data that are to be used. When Consolidate is used to link worksheets and/or workbooks, the 3-D references are inserted into the dialog box. To consolidate worksheets, complete the steps below.

Link Worksheets

- † Open the document **EMP Monthly Earnings (Link Worksheets)** from the area where the files that were downloaded from the **Excel Training Web** page are stored.
- † Select cells **C3** through **D6** from the **Monthly Total** worksheet.
- † Click the **Data Tab**.
- † In the **Data Tools Group**, click the **Consolidate** button.
- † The **Consolidate** dialog box will open (see illustration).
- † If **Sum** is not displayed in the **Function** box, click the drop-down arrow and choose **Sum**.
- † In the **References** box, click the **Collapse** button (see illustration above).
- † The dialog box will display just the **Reference** row (see illustration below).

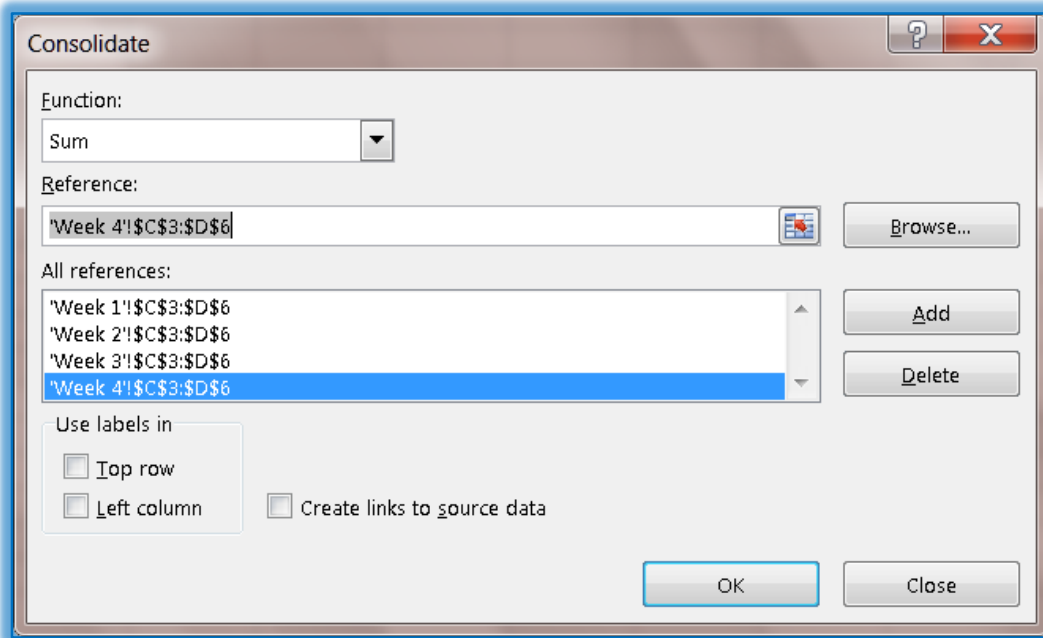


- † Click the **Week 1** tab and then select cells **C3** through **D6**.
- † Click the **Expand** button on the **Consolidate - Reference** dialog box (see illustration below).



- † The reference **'Week 1'!\$C\$3:\$D\$6** appears in the **Consolidate - Reference** box.

- † Click the **Add** button to add this information to the **All References** box.
- † With the **Consolidate** dialog box still active, click the **Week 2** tab.
- † The reference in the **Consolidate - Reference** box should change to **Week 2**.
- † The rest of the reference should remain the same as the reference for **Week 1**.
- † Click the **Add** button to insert this reference into the **All references** list.
- † Continue the above process to add the references for **Week 3** and **Week 4**.
- † The **Consolidate** dialog box should look like the illustration below.



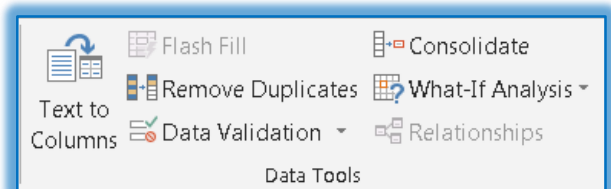
- † After the four references have been added to the **Consolidate** dialog box, click the **OK** button.
- † The cumulative totals for these four worksheets should be displayed in the **Monthly Total** worksheet.

Link Workbooks

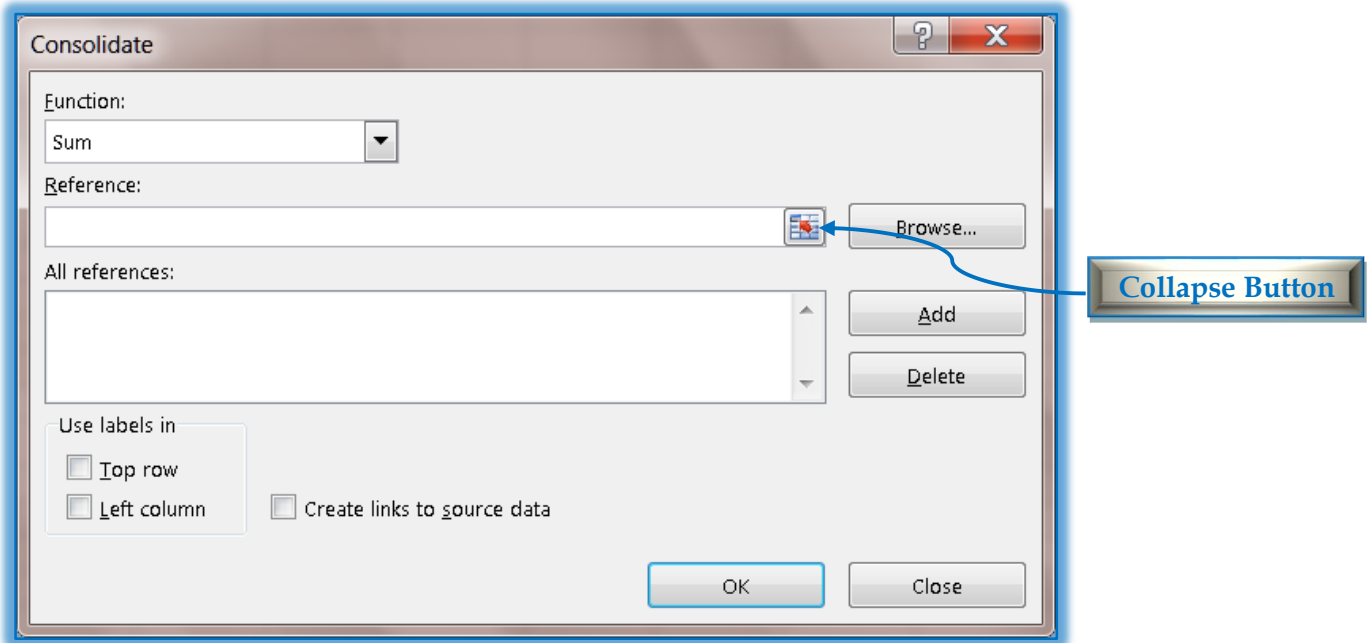
- † Open the following documents from the folder where the documents that were downloaded from the Excel Training Web page were stored.

- ★ **EMP Monthly Earnings (Link Workbooks)**
- ★ **EMP Week 1**
- ★ **EMP Week 2**
- ★ **EMP Week 3**
- ★ **EMP Week 4**

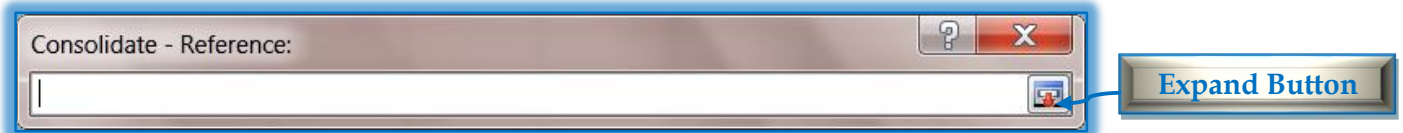
- † Click **EMP Monthly Earnings (Link Workbooks)** from the Excel workbooks list.
- † Select cells **C3** through **D6** in this workbook.
- † Click the **Data Tab**.
- † In the **Data Tools Group**, click the **Consolidate** button.



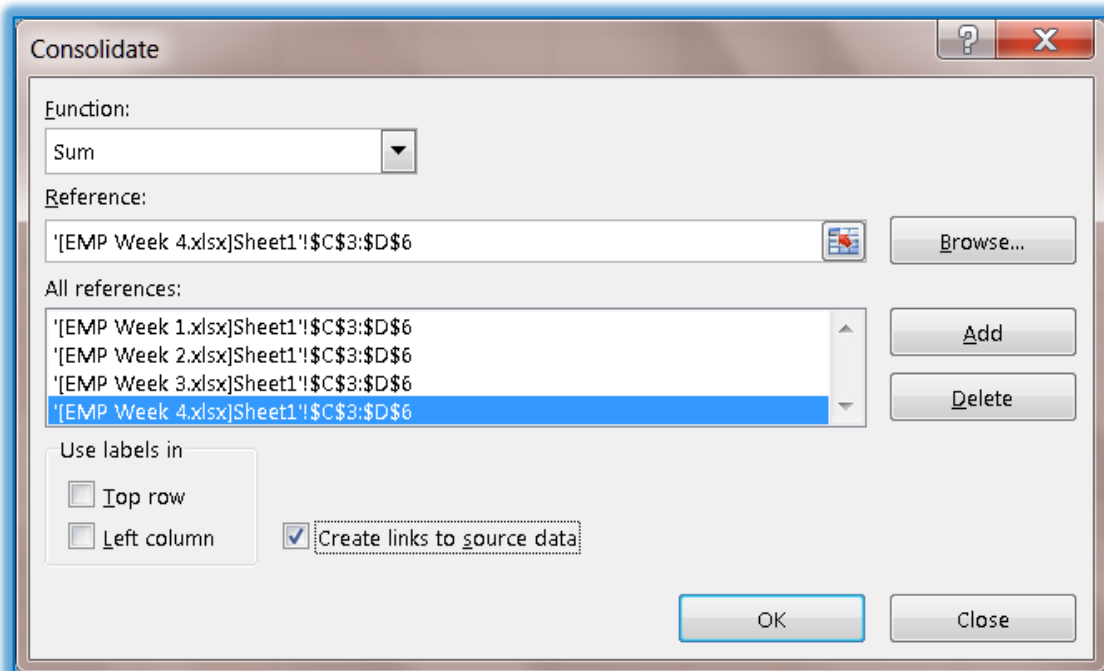
- † The **Consolidate** dialog box will open (see illustration on next page).
- † If **Sum** is not displayed in the **Function** box, click the drop-down arrow and choose **Sum**.
- † Click the **Create Links to Source Data** check box.
 - ★ With this option, links are created to each of the worksheets.
 - ★ When the data is updated in the original documents, it will be updated in the workbook where the consolidation was created.



- ✦ Click the **Collapse** button in the **Reference** box.
- ✦ Click the **EMP Week 1** tab on the **Task Bar**.
- ✦ Select cells **C3** through **D6** in this workbook.
- ✦ Click the **Expand** button on the **Consolidate - Reference** dialog box (see illustration below).
- ✦ The reference **'[EMP Week 1]Sheet1!\$C\$3:\$D\$6** appears in the **Reference** box.



- ✦ Click the **Add** button to add this information to the **All References** box.



- † Delete the information in the **Consolidate-Reference** dialog box.
- † Continue the above process to add the references for **Week 2, Week 3** and **Week 4**.
 - ★ This option works differently than when you were linking Worksheets.
 - ★ When Workbooks are linked, you have to select the range in each workbook.
 - ★ The range doesn't stay selected for each one.
- † The Consolidate dialog box should look like the illustration on the previous page.
- † Click the **OK** button.

Viewing Data from Links

Once the data has been consolidated, it is possible to view it in different ways. These ways are described in this section.

- † Look at the **Row Numbers**. You will notice that some rows are not displayed.

	A	B	C	D
1	Monthly Payroll Totals			
2	Employee	Rate of Pay	Hours Worked	Gross Pay
+	7 A3121	14.15	182.75	2,585.91
+	12 B4325	12.75	188.60	2,404.65
+	17 H9891	21.95	142.50	3,127.88
+	22 K7198	13.60	182.35	2,479.96
23	Total		1,209.65	18,610.88

- † Click the **Number 2** in the **Level** area on the left side of the worksheet.
- † The numbers that were consolidated will be displayed, as well as the totals.
- † Click the **Number 1** button to show just the **Totals**.
- † To display the consolidated data for each individual section, click the **Show Detail** button. This is the plus (+) sign beside the total for the category.
- † To remove the display for the consolidated data for each of the data categories, click the **Hide Details** button. This is the minus (-) sign that will appear beside the total for the category after the plus (+) sign is clicked.
- † Close the document and save the changes.