Excel Refresher 1 Transcript

Title Screen

Narrator: No audio

Screen 1

Screen Title: Microsoft Excel 2013

Screen Content

[Graphic depicting numbers in cells]

Narrator: In this module we will begin working in Excel 2013. Excel is designed to allow you to work with numbers.

Screen 2

Screen Title: Key Points

Screen Content

- Elements of an Excel spreadsheet
- Specifying cell ranges

Narrator: First we will discuss the main elements of an Excel spreadsheet. Then we will cover the mechanics of specifying cell ranges in Excel formulas.

Screen 3

Screen Title: Elements of an Excel Spreadsheet

Screen Content

[Screen capture of a Microsoft Excel 2013 document]

Narrator: Most of an Excel window is composed of a grid of cells.
Screen 4

Screen Title: Elements of an Excel Spreadsheet

Screen Content

[Screen capture of a Microsoft Excel 2013 document with a cell highlighted]

Narrator: Each cell is located at the intersection of a column and row.

Screen 5

Screen Title: Elements of an Excel Spreadsheet

Screen Content

[Screen capture of a Microsoft Excel 2013 document with a cell, row, and column highlighted]

Narrator: Columns are identified by letters and rows are identified by numbers. When the columns reach Z, they start over with AA, go to AZ, and then start over with BA and so on. A cell address is composed of the letter of the column of the cell, followed by the number for the row of the cell. Examples of cell addresses include A11, F23, or BC52.

Screen 6

Screen Title: Elements of an Excel Spreadsheet

Screen Content

[Screen capture of a Microsoft Excel 2013 document with one of the labels circled]

Narrator: There are three things that you can put in a cell. The first of these is a label. Labels are text and are placed next to numbers to explain what those numbers represent.

Screen 7

Screen Title: Elements of an Excel Spreadsheet

Screen Content

[Screen capture of a Microsoft Excel 2013 document with one of the cell values circled]

Narrator: The second thing you can put in a cell is a value. Values are numbers. Excel provides many options for formatting numbers.
Screen 8

Screen Title: Elements of an Excel Spreadsheet

Screen Content

[Screen capture of a Microsoft Excel 2013 document with the formula bar and resulting cell value circled]

Narrator: The third thing that can go into a cell is a formula. Notice that the cell displays the result of a formula, while the formula bar displays the formula that is stored in the cell.

Screen 9

Screen Title: Formula Examples

Screen Content

- Cell ranges
- Formula with cell references
  =B4+C4
- Formula that uses a function
  =SUM(B4:D4)

Operations:
Addition: +
Subtraction –
Multiplication: *
Division: /

Narrator: Formulas in Excel begin with the equal sign. A simple formula would be =2+3. The plus sign is used for addition, the minus sign is used for subtraction, the asterisk is used for multiplication, and the forward slash is used for division. Excel uses the standard order of operations to evaluate formulas. In other words, multiplication and division are performed before addition and subtraction when a formula is calculated. Parentheses can be used to specify which parts of a formula should be performed first.

In addition to using numbers in formulas, you can also use cell references to have Excel use the values in those cells when evaluating the formula. Using cell references in a formula is a powerful and flexible feature. You can update the numbers in individual cells and Excel will automatically recalculate any formulas that reference those cells.

Finally, you can use functions in a formula. Functions allow you to perform advanced operations in a formula, like calculating a square root. One of the most commonly used functions is the SUM function, which adds the values of a group of numbers or cells.
Narrator: One feature in Excel that students struggle with is how to specify ranges of cells when writing a formula. A range of cells can be specified with either a colon or a comma in between the cell references, depending on what you need.

Narrator: As an example of how to specify ranges of cells, we will manipulate a spreadsheet that lists annual widget sales for red, blue, and green widgets in the years 2012, 2013, and 2014.

Narrator: Use a colon to specify a rectangular range of cells with this format: the left-most cell reference, a colon, and then the right-most cell reference. For example, to calculate the total sales of red widgets for all three years, you need to total the values in cells B4, C4, and D4. You can perform calculations on a row of data by specifying the left-most cell, colon, and then the right-most cell. The range to specify these three cells is B4, colon, D4.
Screen 13

Screen Title: Cell Ranges in Excel

Screen Content

- Row of values

[Screen capture of a Microsoft Excel 2013 document with =SUM( typed in cell E4)]

Narrator: First, in cell E4 you would type: =SUM(

Screen 14

Screen Title: Cell Ranges in Excel

Screen Content

- Row of values

[Screen capture of a Microsoft Excel 2013 document showing a click and drag from cell B4 to D4]

Narrator: Then click on cell B4, keep the button depressed, and drag to cell D4. Release the button upon reaching cell D4.

Screen 15

Screen Title: Cell Ranges in Excel

Screen Content

- Row of values

[Screen capture of a Microsoft Excel 2013 document showing the result in cell E4]

Narrator: Finally, press Enter on your keyboard to complete the formula. The range specified in the formula is B4, colon, D4 and includes the values in cells B4, C4, and D4 in the sum, even though cell C4 is not explicitly listed in the formula.
Screen 16

Screen Title: Cell Ranges in Excel

Screen Content

- Column of values

[Screen capture of a Microsoft Excel 2013 document with cells B4, B5, and B6 highlighted]

Narrator: To calculate the total sales of all widgets in the year 2010, you need to total the values in cells B4, B5, and B6.

You can perform calculations on a column of data by specifying the top-most cell, a colon, and then the bottom-most cell. The range to specify these three cells is B4, colon, B6.

Screen 17

Screen Title: Cell Ranges in Excel

Screen Content

- Column of values

[Screen capture of a Microsoft Excel 2013 document with =SUM( typed in cell B7)]

Narrator: To complete this action, first you would select cell B7 and you would type: =SUM(.

Screen 18

Screen Title: Cell Ranges in Excel

Screen Content

- Column of values

[Screen capture of a Microsoft Excel 2013 document showing a click and drag from cell B4 to B6]

Narrator: Then, you would click on cell B4, keep the button depressed, and drag to cell B6. Release the button upon reaching cell B6.
Column of values

[Narrator] Finally, press Enter on your keyboard to complete the formula. The range specified in the formula is B4, colon, B6 and includes the values in cells B4, B5, and B6 in the sum, even though cell B5 is not explicitly listed in the formula.

Multiple rows and/or columns

[Narrator] You can also specify multiple rows and/or columns. For example, to calculate the total sales of all widgets in the years 2012 and 2013, you need to total the values in cells B4, B5, and B6, as well as cells C4, C5, and C6. In this case, the range starts with the cell in the upper left-hand corner (or cell B4), followed by a colon, and then the cell in the lower right-hand corner (or cell C6). The range to specify these six cells is B4, colon, C6.

Multiple rows and/or columns

[Narrator] To complete this action, first you would select cell C7 and then you would type: =SUM(.
Screen 22  
**Screen Title:** Cell Ranges in Excel  
**Screen Content**  
- Multiple rows and/or columns

*[Screen capture of a Microsoft Excel 2013 document showing a click and drag from cell B4 to C6]*

**Narrator:** Then, you would click on cell B4, keep the button depressed, and drag to cell C6. Release the button upon reaching cell C6.

Screen 23  
**Screen Title:** Cell Ranges in Excel  
**Screen Content**  
- Multiple rows and/or columns

*[Screen capture of a Microsoft Excel 2013 document showing the result in cell C7]*

**Narrator:** Finally, press *Enter* on your keyboard to complete the formula. The range specified in the formula is B4, colon, C6 and includes the values in cells B4, B5, and B6, as well as the values in cells C4, C5, and C6 in the sum.

Screen 24  
**Screen Title:** Cell Ranges in Excel  
**Screen Content**  
- Nonadjacent cells

*[Screen capture of a Microsoft Excel 2013 document with cells B4 and B6 highlighted]*

**Narrator:** Lastly, it is possible to specify a range of cells that are not adjacent to each other with a comma, instead of a colon. For example, to calculate the total sales of red and green widgets in the year 2012, you need to total the values in cells B4 and B6. The range to specify these two cells is B4, comma, B6. Notice that the range B4, colon, B6 includes any cells in between cells B4 and B6 in the range, so cell B5 is included in the range. However, if you use a comma in the range, then only cells B4 and B6 are included.
**Screen 25**

**Screen Title:** Cell Ranges in Excel

**Screen Content**

- Nonadjacent cells

*[Screen capture of a Microsoft Excel 2013 document with \(=SUM(\) typed in cell B7)]*

**Narrator:** To see this in action, you would return to cell B7, delete the previous formula and type: \(=SUM(\).

**Screen 26**

**Screen Title:** Cell Ranges in Excel

**Screen Content**

- Nonadjacent cells

*[Screen capture of a Microsoft Excel 2013 document showing cells B4 and B6 selected]*

**Narrator:** Then, you would left-click on cell B4, hold down on the **Ctrl** key, left-click on cell B6, and then release the **Ctrl** key.

**Screen 27**

**Screen Title:** Cell Ranges in Excel

**Screen Content**

- Nonadjacent cells

*[Screen capture of a Microsoft Excel 2013 document showing the result in cell B7]*

**Narrator:** Finally, press **Enter** on your keyboard to complete the formula. The range specified in the formula is B4, comma, B6, and only includes the values in cells B4 and B6 in the sum because a comma was used in between the cell references instead of a colon.
Screen 28

Screen Title: Summary

Screen Content

- Elements of an Excel spreadsheet
- Specifying cell ranges

Narrator: To sum things up from this module, we discussed how an Excel spreadsheet is composed of a grid of cells. Each cell may contain a label, a value, or a formula. Functions may be used in formulas to perform more advanced operations. We also covered the basics of working with cell ranges in formulas in Excel using either a comma or a colon to specify whether the cells in the range are adjacent or nonadjacent to each other.

End of presentation