("12/25/2001")-TODAY
Calculates the number of Days between now and Christmas, 2001 displaying The result as a number.

## Using Logical Functions

Some of the most useful functions are the logical functions. You can find countless practical uses for Excel's most popular logical function, IF. The following is the syntax of the IF functions.
= IF (logical_test.value_if_true,value_if_false)

List say you've created a worksheet that you use to create invoice. You want to reward your best customers with a 10 percent discount, and you want Excel to apply the discount automatically.

Normally, you would use the SUM functions in the cell where you display the grand total. If you use the if function instead, you can ask Excel a simple true-or-false question: Did this customer spend more than $\$ 1,000$ this month? Then you provide two sets on instructions one for Excel to use if the answer is yes, the other if the answer is no.

The If function uses three arguments the logical test, the value if true, and the value if false, the first two arguments are required, but the third arguments is optional.. In the invoice example, assuming that the subtotal was in cell D24, you would fill in the following formula: $\operatorname{IF}(\mathrm{D} 24>1000, \mathrm{D} 24 * 90 \%, \mathrm{D} 24)$. The first argument the logical test, checks to see whether the value in D24 is greater than 1000. If that condition is true, Excel uses the second argument and calculates 90 percent of the subtotal, effectively passing along a 10 percent discount. If the logical test is false, Excel uses the third argument and displays the value shown in cell D24.

## Using the Formula Palette to Avoid Errors

If you know the exact syntax of a function, you can enter the function and its argument a in the active cell, just remember to start with an equal sign. But what do you do when you're not sure which arguments go with a specific
function? Use Excel's Formula Palette to help you enter the function and all its arguments.

To open the Formula Palette, you must first position the insertion point in the cell where you want to add a formula.

## Using the Formula Palette to Enter Function

1. Click the Edit Formula button = (the equal sign just to the left of the Formula bar). Excel inserts an equal sign in the Formula bar, position the insertion point to its right and opens the Formula Palette just below the Formula bar.
2. If the name of the function you want to use appears in the Function Box, click to enter it into the Formula bar. To see additional choices, click the drop-down arrow to the right of the Function Box.
3. To choose from a master list of all available functions, choose More Functions from the bottom of the drop-down list. The Paste Function dialog box appears.
4. Select a category from the list on the left, choose a function from the matching list on the right, and then click OK. Excel adds the function to the Formula bar and expands the Formula Palette to show separate text boxes for each argument.
5. Click within the first argument box and fill in the required data. To add cell references by pointing and clicking, first click the Collapse Dialog button to roll most of the Formula Palette up and out of the way. Next, select the cell or range to use for the selected argument, and then click the Collapse Dialog button again to continue.
6. Repeat step 5 for other required arguments and optional arguments.
7. After entering all required arguments, click OK to paste the complete function into the current cell, or click Cancel to start over.

## Entering Cell and Range References

When you create formulas you choose exactly how to enter reference to cell and range addresses. To enter a cell address in a formula, type its column letter and two number, with no separation between them.(Don't worry about capital letters, if you enter a52 in a formula, Excel converts the entry to A52 when you press Enter.

To specify a range of data, enter the address of the cell that defines the top left corner of the range, followed by a colon (:) and the address of the cell that defines the lower right cforner of the range. Enter B2:M20, for example, to reger to all the cells in columns $B$ through $M$ that are also in rows 2 through 20. To refer to all the cells in row or column, use only the single corrdinate. Thus, $2: 2$ refers to all the cells in row 2 , and $\mathrm{C}: \mathrm{E}$ includes all the cells in clumns C through E .

You can also enter any cell or range reference in a formula by pointing and clicking. Start typing the formula and then click in the worksheet to enter the reference to a single cell. Drag through several cells to select a range and inssert it inot a formula.

### 10.6 Short Summary

* A range is any combination of cells that you select, generally so that you can enter data or include the cells in a command or formula
* There are two types of references one is Relative and the other one is Absolute.
* Excel 2000 can crunch numbers using more than 200 functions, from simple averages to complex trigonometric formulas.
$8 \infty$

Lecture 11

## Microsoft Excel

| Objectives |
| :--- |
| In this Lecture you will learn the following: |
| - Specifying What to Print |
| - Working With Chart |
| - Working With Template |
| - Custom View |
| - Linking Work Books |
| - Using Arrays |

