

Unit 2 Applications

Unit Application 2-1

Use an absolute reference. Use the ABS and MIN functions. Apply a border.

Klassy Kow Ice Cream has a contest in which customers guess how many gumballs are in a large jar. You keep track of customers and their guesses to determine who has won. The correct count is shown in cell B4.

1. Open **Gumballs**. Save the workbook as *[your initials]ju2-1* in a folder for Unit 2.



NOTE

The ABS function calculates the absolute value of a negative number. The formula should use an absolute reference for cell B4.

2. In cell C5, key **Difference**. In cell D5, key **Lowest Difference**. Copy the format from cell D5 to the other labels in row 5.
3. In cell C6, key **=abs** to start the ABS function from the Math & Trig category. As the **Number** argument, subtract the value of cell B6 from the absolute value of cell B4. Copy the formula.

4. In cell D6, use the MIN function to determine which difference in column C is the smallest.
5. Format all values as 11-point regular Calibri with commas and no decimals.
6. Apply a double top and double bottom border to highlight the winner's name and numbers.
7. Add a footer.
8. Prepare and submit your work. Save and close the workbook.

Unit Application 2-2

Use order of precedence. Determine ages. Nest AND and IF functions.

On the customer birthday list, you need to indicate whether a customer is between 1 and 4 years old, between 5 and 10 years old, or over 10. The formula uses AND functions nested in IF functions.

1. Open **CustAge** and save the workbook as *[your initials]ju2-2*.



REVIEW

The IF function is in the **Logical** category.

2. In cell E3, key **Category** and copy the format from one of the other labels in this row.
3. Determine the customer's age in column D. Format the results as **Number** with two decimals.

4. In cell E4, start an IF function. For the **Logical_test**, nest **AND**. In the **Logical1** box, click cell D4 and key **>=5**. For the **Logical2** entry, set **D4<=10**. This AND function tests if a customer is between 5 and 10 years old.
5. Return to the **IF** function. For **Value_if_true**, key **Between 5 and 10**. If the results of the AND function are true, this statement will be shown.
6. For **Value_if_false**, nest another **IF** function. For the **Logical_test**, nest **AND**. For **Logical1**, use **D4>=1**. For **Logical2**, use **D4<5**. This tests if the customer is between 1 and 4 years old.
7. Return to the second **IF** function and key **Between 1 and 4** as the **Value_if_true**. For the **Value_if_false**, key **Over 10**. Click **OK**.
8. Format the results to match other labels in the row, and copy the formula. Set a horizontal left indent of 1 for the results.

**TIP**

Use the Mini toolbar to change the header font.

9. Center the labels in rows 1:2 across the data. Use borders, fill, row height, and column width to enhance the readability of your worksheet.
10. Change the birthday for Maureen Weinberg to one that will make her over 10 years old.

11. Add a header using a 9-point font in all sections. Make sure the sheet will fit on a portrait page.
12. Make a copy of the worksheet and name it **CustBirthdaysFormulas**. Hide column C and display the formulas. Fit this sheet to one landscape page.
13. Prepare and submit your work. Save and close the workbook.

Unit Application 2-3

Use mixed references.

**TIP**

Group sheets and delete them at once.

Each ice cream shop buys supplies from the San Francisco headquarters. A shop receives a discount based on the quantity ordered. You need to determine the total cost based on the quantity and the discount.

1. Open **SupplyDisc**. Rename **Sheet1** as **Discounts**. Delete **Sheet2** and **Sheet3**. Save the workbook as *[your initials]u2-3*.
2. In cell C6, multiply the quantity by the price using mixed references. Then multiply that result by 1 minus the discount (another mixed reference). You should be able to copy the formula to the rows in column C and then to the other columns.
3. Center cells C4:F4 across the data.
4. Choose a different document theme. Format all values in rows 6:14 with a floating dollar sign and two decimals. Show commas, no decimals, for the values in row 3.

5. Add a header or footer.
6. Make a formula sheet named **DiscountsFormulas**. Fit all the columns to the data and to one landscape page.
7. Prepare and submit your work. Save and close the workbook.

Unit Application 2-4 ♦ Using the Internet

Search online travel sites to determine travel times for trips from cities in the United States to cities in Canada, Mexico, China, France, and Italy (5 rows of data). For each trip, choose a departure city and a destination city (Chicago to Vancouver, Omaha to Paris). Develop your data so that at least one trip is by train and one is by car.

Prepare a worksheet that lists the departure and arrival cities and travel time. Include type of transportation. Show the current date somewhere on the sheet as well as an average travel time for your trips. Choose a document theme and use cell styles to design your work.

Add appropriate labels and a footer. Save your workbook as *[your initials]u2-4*. Prepare and submit your work.