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# **About Exercise 1**

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The PTC Mathcad user interface is designed to make your work intuitive and simple. Most of the commands in PTC Mathcad are on the Ribbon. You can customize your workspace by minimizing or maximizing the Ribbon and by adding commands that you frequently use to the Quick Access Toolbar. To learn more about a Ribbon command, you can read its tooltip and access context-sensitive Help. After completing this exercise, you will be able to:

- Navigate the PTC Mathcad workspace
- Use the Help effectively

Proceed to Task 1-1

# Task 1–1: Navigating and Customizing the **PTC Mathcad Workspace**

In this exercise you are required to navigate the PTC Mathcad workspace and Help Center. For your convenience, download a copy of this PDF file, open it from your computer, and then continue.

- 1. To save this file, on the PDF toolbar, click 🗐.
- 2. Open the saved file and continue by following the steps below.
- 3. In PTC Mathcad, examine the Math tab, and click other Ribbon tabs to view their buttons and commands. All operators, functions, units, symbols, matrices, and plot features are available from the Ribbon. Place the pointer over a Ribbon item to view more information on specific commands.



## Note

Each Ribbon tab is divided into groups. For example, on the Math tab, in the Operators and Symbols group, you can find the Operators, Symbols, Programming, Constants, and Symbolics lists.

- 4. Click the PTC Mathcad Button wo to view the list of commands in it, and then examine the Quick Access Toolbar located next to the PTC Mathcad Button.
- 5. To add a button to the Quick Access Toolbar, on the **Math** tab, in the **Regions** group, right-click the Text Block icon, and select Add to Quick Access Toolbar from the shortcut menu.



### Note

By default the Quick Access Toolbar is to the right of the PTC Mathcad Button and above the Ribbon.

6. To remove the added button, right-click it, and select Remove from Quick Access Toolbar.

Proceed to Task 1–2.

# Task 1–2: Using the Help Center

## Opening and Navigating the Help

- 1. Click the Help icon on the top-right corner of the Ribbon. The Help Center opens.
- 2. Use the Table of Contents on the left side to navigate the Help Center.
- 3. In the Search box, type "copy math" and click Search.
- 4. From the search results, open the Help topic To Copy Math Examples from the Help.
- 5. Perform the steps in the topic and then close the Help Center.
- 6. On the Math tab, in the Regions group, place the pointer on the Solve Block button. The command tooltip appears.
- 7. While the tooltip is visible, press F1. The Help topic About Solve Blocks opens.
- 8. In the Related Links list, click Example: Solve Blocks with Inequality Constraints. The Help topic opens.
- 9. Read the Example Help topic, minimize the Help Center window, and continue by following the steps below.

## Copying Math Expressions from Help Examples

The Help contains many examples that demonstrate the use of PTC Mathcad and its functions and operators. You can copy the math expressions in the Help examples into your worksheet and then experiment with the math.



#### Note

To find examples with copyable math in the Help Center, include the word "example" with your search term, for instance, "example temperature". Help topics whose title start with the word "Example" contain copyable math.

Some examples read external data files. All the external data files are in data files.zip. To work with copied math expressions that reference an external file, you must first set the data files directory as your current working directory. You set your current working directory by saving a worksheet to that directory.

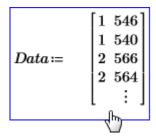
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- 1. To save the blank worksheet, click . The **Save As** dialog box opens.
- 2. Type a name for the file, keep the default .mcdx file extension selected, and save the worksheet in the data files directory.

#### Note

To verify that the current working directory is set properly, type the string CWD= in the worksheet. The current working directory appears between quotation marks.

- 3. Open the Help and type "Example: Column, Normal Probability, and Box Plots" in the **Search** box. Click **Search** and open the topic from the search results.
- 4. To copy the first expression in the topic Example: Column, Normal Probability, and Box Plots to your worksheet, point to the expression graphic and click. The expression is copied to the clipboard.





#### Note

You must click the graphic to copy the expression to the clipboard. Do not press Ctrl+C.

- 5. To paste the expression, click inside the worksheet and press Ctrl+V.
  - Alternatively, right-click the worksheet and select **Paste** from the shortcut menu.
  - The expression is copied to the worksheet.
- 6. To copy all the math expressions in the example, click **Copy Expressions** on the top-right of the Help example.
- 7. Click inside the worksheet and press Ctrl+V. All expressions are copied to the worksheet.

- 8. Edit the pasted math expressions to see how results change.
- 9. Save the worksheet and keep it open.

Open the Getting Started Tutorial in the Help Center and proceed to Exercise 2.

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