

# Data and Graphs

In this tool, you can add data sets to a table and then select a graph type to display and manipulate the data sets.

The screenshot shows the 'Data and Graphs' tool interface. At the top right, there are four buttons: a text box icon (1), a text box with an arrow icon (2), a help icon (3), and a 'Reset All' button (4). On the left, a table with three columns is shown. The first column is labeled 'Time (months)' (5), the second 'Money (dollars)', and the third 'Column C'. The table contains 10 rows of data. A vertical divider bar (7) separates the table from the graph area on the right. The graph area (8) is currently empty. At the bottom, there is a toolbar with various icons for editing and a dropdown menu labeled '[select graph type]'.

Time (months)	Money (dollars)	Column C
1	156.87	
2	235.78	
3	546.87	
4	451.54	
5	684.35	
6	789.34	
7	367.34	
8	436.87	
9	326.87	
10	120.54	

- 1. Textbox** Add comments to the activity area.
- 2. Textbox with Arrow** Add comments to the activity area, using the arrow to focus attention on a particular area.
- 3. Help** Launch a help file PDF for the tool.
- 4. Reset All** Reset all current work in the activity area for the tool back to the default settings.
- 5. Column Header** You can name each of your columns of data and sort the values from low to high or high to low.
- 6. Table Area** The area of the tool where you can add and manipulate data. There are 7 columns and 200 rows in the table. Each cell in the table can hold up to 14 characters, and values up to 999,999. You may need to move the divider bar to see some or all of the table.
- 7. Divider Bar** The divider bar separates the Table and Graph areas. You can drag the divider bar all the way from the left side of the Table Area to the right side of the Graph Area. Dragging the bar to the right will hide the graph, and dragging to the left will hide the table.
- 8. Graph Area** After you select your graph type and settings, the area where your graph will be drawn. You may need to move to the slider bar to see some or all of the graph.

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Time (months)	Money (dollars)	Column C	Column D
1	156.87		
2	235.78		
3	546.87		
4	451.54		
5	684.35		
6	789.34		
7	367.34		
8	436.87		
9	326.87		
10	120.54		

[select graph type]

- None
- Bar Graph
- Double Bar Graph
- Scatter Plot
- Line Plot
- Box Plot
- Double Box Plot
- Dot Plot
- Histogram

[select graph type]

9 10 11 12 13 14 15

- 9. Cut Button** When you select one or more cells in the table, the cut button becomes active. Using the cut button will remove the value of the selected cells. The cut value(s) can then be pasted anywhere in the table.
- 10. Copy Button** When you select one or more cells in the table, the copy button becomes active. Using the copy button will duplicate the value of the selected cells. The copied value(s) can then be pasted anywhere in the table.
- 11. Paste Button** When either the cut or copy button has been used, the paste button becomes active. Selecting the paste button will insert the data last cut or copied in the selected cell.
- 12. Undo Button** You can use the undo button to remove the most recent change(s) to the tool. Only items in the table and graph areas can be removed using the undo button.
- 13. Redo Button** You can use the redo button to restore the most recent change(s) to the tool. Only items in the table and graph areas can be restored using the redo button.
- 14. Random Value Button** Using the Random Value Button, you can populate the table with a set of values, chosen at random after selecting the precision, range, and number of rows to populate.
- 15. Sample Data Button** Allows you to immediately populate the table with pre-selected data sets. There are three sample data sets in the tool to choose from.

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- 16. Data Summary Button** Using the data from a particular column, you can find the value of several statistical measures including measures of central tendency and deviation for that column of data.
- 17. Trend Line Button** When you choose a graph type that can plot coordinate data, the trend line button becomes active. When you select the trend line button, a line with two control points is placed on the graph. You can move the two control points to change the slope of the trend line. Selecting one of the control points will show the equations of the trend line currently on the graph.
- 18. Reference Line Button** For each graph type, you can use the reference line button to add a reference line to compare values along a particular axis. The reference line can be dragged parallel to the given axis. For graphs when you can compare along both axes, there is a toggle at one of the trend line to switch the reference line between axes.
- 19. Graph Selection Menu** Once you have added your data to the table, you can select the graph type that to plot your data. For your graph type, you can choose from single and double bar graphs, single and double box plots, line plot, dot plot, histogram, or scatter plot.
- 20. Set Graph Options Button** Once you select your graph type, you can select the options for your graph. You can choose which column of data represents each part of the graph, the range of the graph along each relevant axis, and the interval(s) for each axis. You graph will update only if all of your chosen data will fit on the graph for the given interval.