

# Fraction Strips Learning Tool

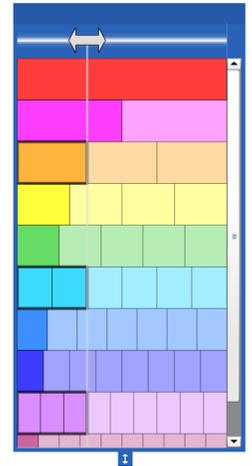
by mathies.ca

## What is it?

The Fraction Strips tower is made up of coloured rectangular strips each representing one whole. The strips are partitioned into different units relative to the whole (halves, thirds, fourths, etc.).

## How do you use the tool?

Fractions are represented in the workspace by dragging one or more pieces from the tower. When pieces are dropped into the workspace, the whole is explicitly shown, emphasizing the part-whole relationship. Pieces can be placed in a line, called a train. Pieces and trains in the workspace can be moved and aligned.



Icon	Description
Equivalence Bar 	Drag to highlight equivalent fractions in the tower.
Change Tower Height 	Drag to adjust the height of the tower. If strips are hidden, use the scroll bar to reveal them. To move the tower, drag it by the dark blue area at the top.
Label 	Toggle between showing: <ul style="list-style-type: none"><li>• no labels</li><li>• the labels in the tower only</li><li>• labels in the tower and in the workspace</li></ul>
Customize Fraction Tower 	Show the Customize Fraction Tower dialog to: <ul style="list-style-type: none"><li>• choose a colour palette (Rainbow, Original, or One Colour)</li><li>• include or exclude strips in the tower</li><li>• change the colour of the strips and the related pieces in the workspace</li><li>• restore the tower to its default state</li></ul>
Ruler 	Toggle between: <ul style="list-style-type: none"><li>• not showing rulers</li><li>• showing rulers</li><li>• showing rulers and the stepper to change the tick marks on the ruler</li></ul> The ticks are illuminated in red if a piece ends exactly at that position.
Comparison Bar 	A comparison bar is a grey, vertical line that is useful to compare fractions, especially when the left edges are aligned. Multiple comparison bars can be created. The length of a bar, its colour and its thickness can be modified.
Zoom Out 	Zoom out to see more of the workspace. The fraction pieces will look smaller. On mobile, you can use the pinch-to-zoom gesture to zoom in and out.

Icon	Description
<p>Zoom In</p> 	<p>Zoom in on selected pieces. The fraction pieces will look bigger, which is useful for more precise comparison, especially when working with small fractions. To pan the workspace use the scroll bars (desktop) or gesture with two fingers (mobile).</p>
<p>Zoom To Fit</p> 	<p>Re-orient the workspace so that all fraction pieces are on the screen.</p>
<p>Annotation Tool</p> 	<p>Show/Hide annotation tools, which are used to document your thinking as you work with the Fraction Strips tool. The Annotation Tools panel includes a pencil for freehand drawing, an eraser, shapes and text boxes. Use the Select arrow to manipulate annotation or to work with the Fraction Strips tool.</p>
<p>Insert Picture</p> 	<p>Import pictures saved on your device. Pictures can be selected, moved, resized, rotated and copied.</p>
<p>Undo/Redo</p> 	<p>Step backward or forward through your actions with the tool. Undo is not only useful for correcting mistakes, but also for revisiting the steps taken with the tool to share your thinking.</p>
<p>Reset</p> 	<p>Return the tool to its original state. All objects in the workspace will be deleted and the settings will be restored to their defaults.</p>
<p>Information</p> 	<p>Show additional information about this learning tool, including a link to the support wiki and a feedback form.</p>
<p>Settings</p> 	<p>Show the Settings dialog to:</p> <ul style="list-style-type: none"> <li>• Open a previously saved Fraction Strips file</li> <li>• Save your work in a file</li> <li>• Restore Defaults to retain the objects in the workspace, while restoring the settings to their defaults, including labels, rulers, and colours.</li> </ul>
<p>Copy</p> 	<p>Copy the selected object(s). To select, click on an object. To deselect, click on an empty part of the workspace.</p> <p>Multiple fraction pieces can be selected by drawing a marquee rectangle around them or by clicking repeatedly. A train can be selected by clicking its white space or by clicking at its edges.</p>
<p>Delete</p> 	<p>Delete selected object(s). If nothing is selected, then the entire workspace is cleared. Alternatively, drag items to the recycle bin to remove them.</p>