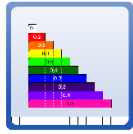
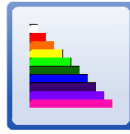


# Relational, Whole Number Decimal Rods Learning Tool

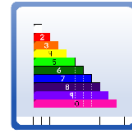
by mathies.ca



Decimal Rods



Relational Rods



Whole Number Rods

## What is it?






**Relational Rods** are rectangles of unassigned lengths and are proportionally related to each other. Each rod can be evenly subdivided by the smallest square rod.

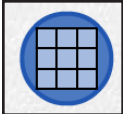


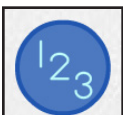



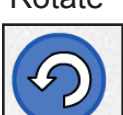

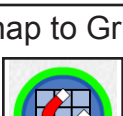
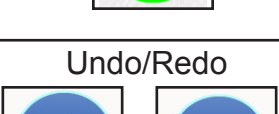
**Whole Number Rods** are rectangles of lengths 1 to 10 with numeric labels and dashed divisions on each rod.

**Decimal Number Rods** are rectangles of lengths 0.1 to 1.0 with numeric labels and dashed divisions on each rod.

## How do you use the tool?

Drag rods from the tower into the workspace. When rods are dragged out, they are represented horizontally. Rotate the rods to represent them vertically. The rods can be placed beside, above and between each other. A ruler is available for the whole number and decimal number rods. Number of units are displayed on the arrow of the ruler. Drag the ruler to adjust its length.

Learning Tool Icon	Description
<p>Annotation Tool</p> 	<p>Press the pencil button to activate the annotation tool. Select the arrow in the annotation tool or deselect the pencil when you want to work with the learning tool.</p> <p>This is a handy tool to document thinking as one is working with the this learning tool. The annotation toolbox includes a pencil with an eraser, shapes, and text.</p>
<p>Copy</p> 	<p>Copy - Copy the selected object(s). To select, click on an object or draw a marquee around a collection of objects.</p>
<p>Customize Rods</p> 	<p>Set the colour of individual rods or the colour scheme for the entire set of rods.</p> <p>The “traditional” colour scheme is similar to the colour of the concrete manipulatives used in classrooms.</p> <p>Choose to hide some of the rods in order to work with a restricted set.</p>
<p>Delete</p> 	<p>If an item in the workspace is selected, then clicking on the recycle bin removes all selected items. If nothing is selected, then the entire workspace is cleared.</p> <p>Alternatively, drag items to the recycle bin to remove them.</p>
<p>English/French</p> 	<p>Choose English or French version of the learning tool.</p>

Learning Tool Icon	Description
<p>Grid</p> 	<p>Show or hide the grid background.</p>
<p>Information</p> 	<p>Additional Information about this learning tool, including access to the support wiki and feedback form.</p>
<p>Insert Picture</p> 	<p>Import pictures and select the picture if multiple copies are desired. A picture of a question or problem can be embedded within the learning tool.</p>
<p>Numbered Labels</p> 	<p>Change numeric labels on the rods as whole numbers, decimal numbers or with none.</p>
<p>Overlap Warning</p> 	<p>The overlap warning label appears when rods are on top of each other. This setting can be turned off.</p>
<p>Partitions</p> 	<p>Show or hide the dashed partitions on the rods.</p>
<p>Reset</p> 	<p>Press the Reset button to return the tool to its original state with default settings.</p>
<p>Rotate</p> 	<p>Rotate the selected object(s). To select, click on an object or draw a marquee around a collection of objects.</p>
<p>Settings</p> 	<p>Customize the physical size of the rods, type of label, set they type of overlap warning, show or hide ruler and restore defaults while keeping objects on the workspace.</p>
<p>Snap to Grid</p> 	<p>When Snap to Grid mode is active, rods snap to a defined grid. When the grid background is showing, the rods fit exactly to the grid. When Snap to Grid mode is not active and the grid background is showing, the rods may not fit exactly to the grid.</p>
<p>Undo/Redo</p> 	<p>Step backward or forward through your actions with the tool. It is not only useful for correcting mistakes, but also for revisiting the steps taken with the tool to share thinking.</p>