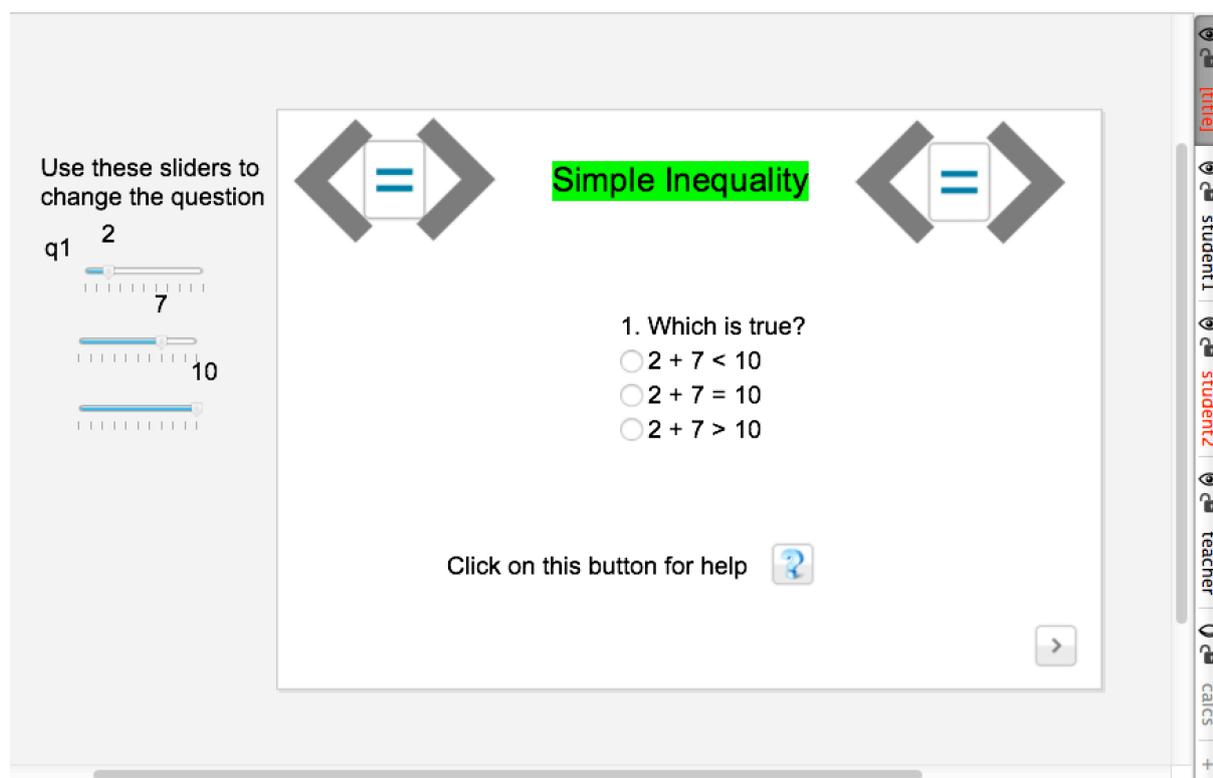


## LAYERS

Layers allow collections of objects to be easily shared between different pages in a file. Such objects may also be easily hidden or shown.

Open the Cabri Author file **layers**. This consists of a very simple MCQ arithmetic activity, constructed using layers. In this file, layers have been used to share information with other pages and also to organize the pages.



The layers are shown at the edge of the working area, with the currently active layer (in this case **[title]**) highlighted.

Click on the icons above the layer name to activate or deactivate locks in the layer when in the teacher mode and to hide or show it.



Currently, in all layers locks are deactivated and may be edited. Apart from the calcs layer, all layers are visible. Click on the hide/show icons to see the content of each layer.

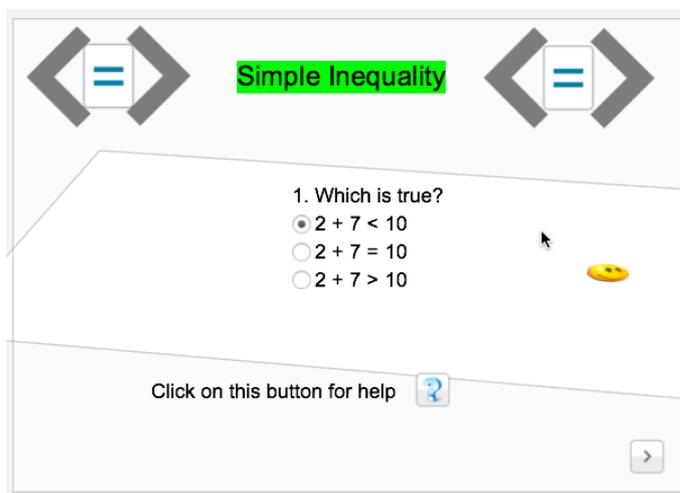
## 1. DIFFERENT TYPES OF LAYERS

The CLMC file *layers* illustrates two fundamental differences between layers: foreground vs ordinary, and shared vs unshared.

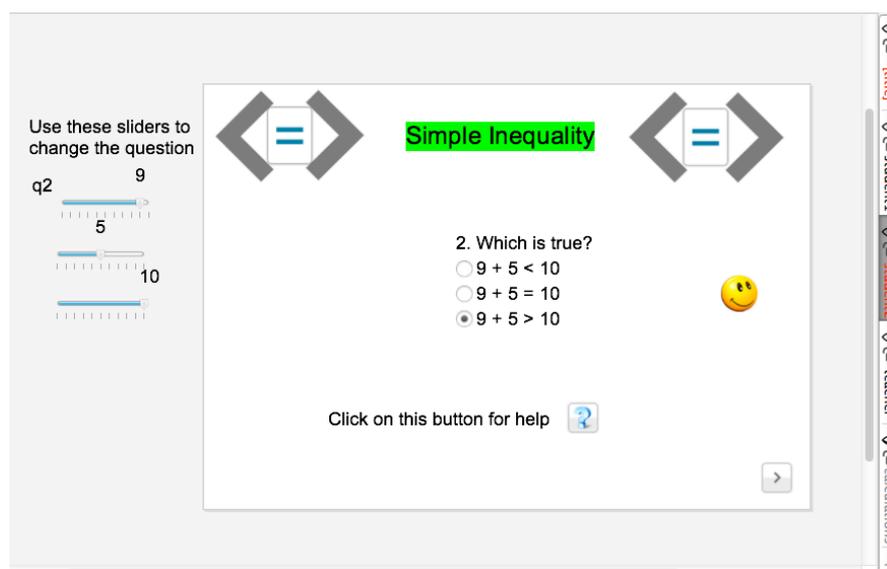
The layer **[title]** is a foreground layer. This is indicated by the square brackets around the name.

Now click on the correct answer to the question and then use right-click dragging to tilt the sheet.

Notice that the smiley face moves as the sheet is tilted, while the images on the title layer do not move.



The layer **[title]** is also shared with other pages of the document. This is indicated by its name being shown in red. Here is a screenshot of page 2:

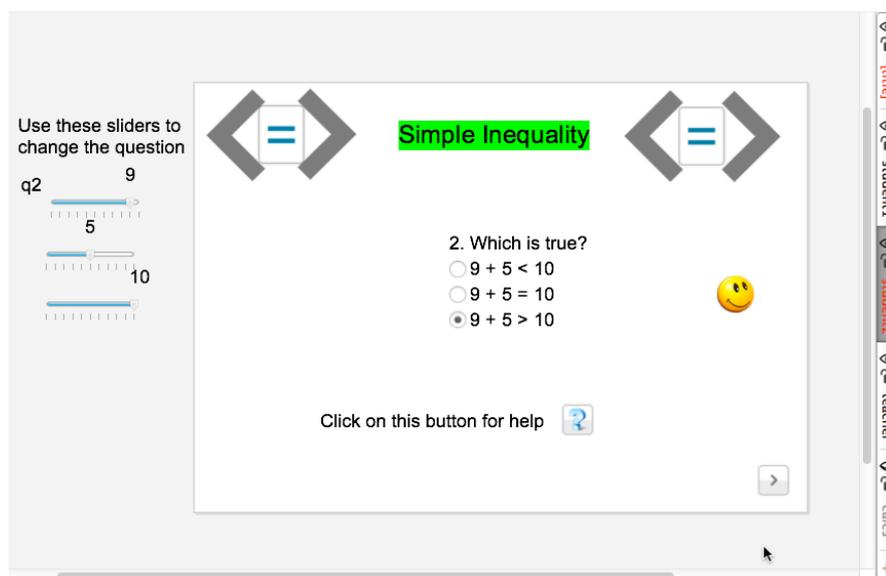


The layer **student2** is also shared and appears on this page.

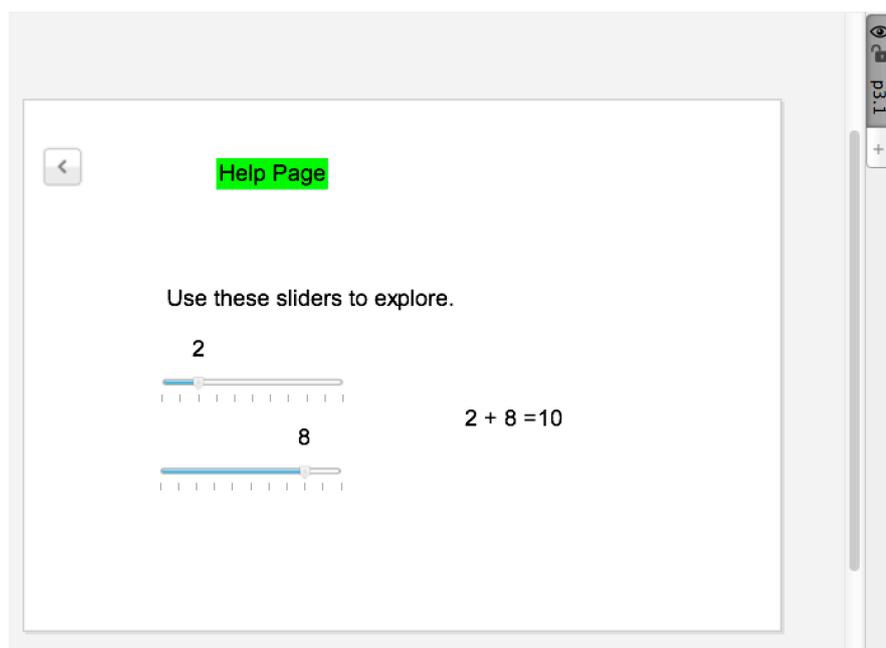
A layer that is shared is shown in red. Any changes made to this layer

will affect all pages that share the layer.

Note that the other layers on page 2 are not shared, despite their similar names. The page was created as a duplicate of page 1 and then edited slightly.

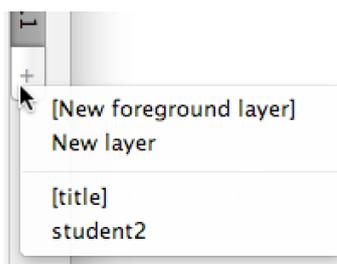


The third page of the book (reached by clicking on the help button) has only its initial default layer.



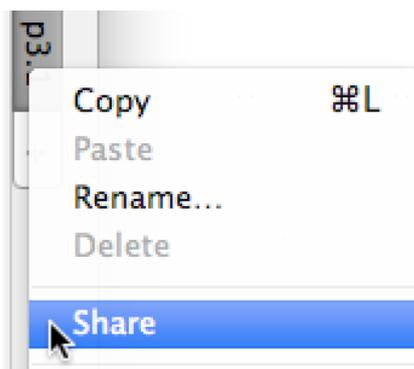
## 2. ADDING, SHARING AND REMOVING LAYERS

To add a layer to a page, click on the + below the last layer name.



To share a layer, you must first select the layer in the page in which it was created.

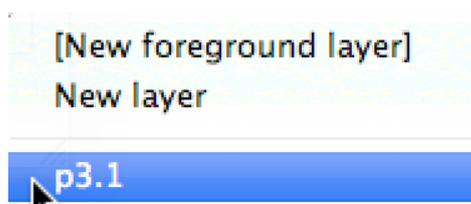
Right-click on the layer name and choose **Share** from the menu that appears.



The layer name will then appear in green, indicating that it is able to be shared with other pages, but is not yet shared by any.



To share this layer with another page, select **+** in the other page and select the layer.

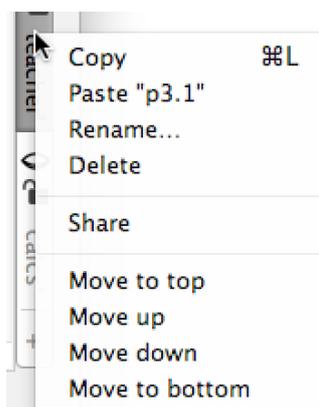


Note that if a layer is shared, any changes made to the layer in any of the pages that share the layer will be made in all the pages that share the layer.

You can also copy and paste layers using the right-click menu on the layer to be copied and the menu **Edit – Paste Layer** or the right-click layer menu in the appropriate page.

Copied layers are static copies of the original layer: any changes made on copied layers will not affect the original layer.

It is also possible to rename, delete and move the relative position of a layer using the right-click layer menu.

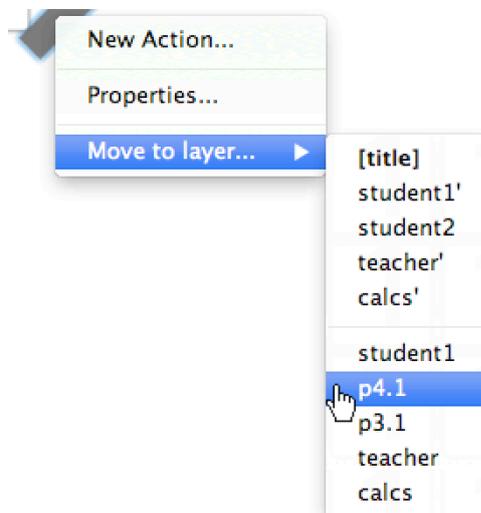


### 3. MOVING OBJECTS BETWEEN LAYERS

Right-click on the object to move and select **Move to layer...**

Note that the object may be moved to layers on the current page, and also to any other layer in the file.

The object's current layer is shown in bold.



The image has been moved from the title layer to layer p4.1, on the empty fourth page of the book.

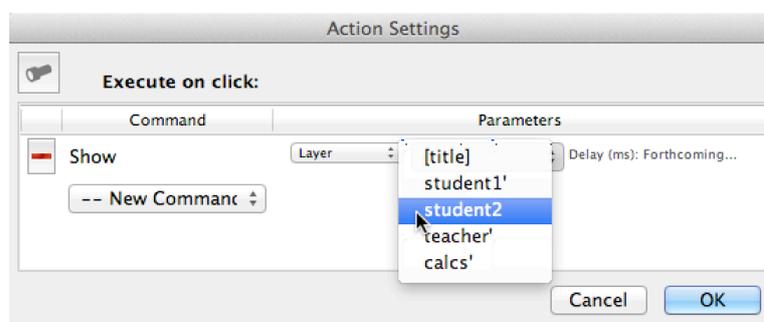
It is no longer on a foreground layer, and hence moves with the sheet as this is tilted.



### 4. ACTIONS ON LAYERS

It is possible to create actions to hide or show layers.

Attach an action to an object, Boolean or button (see the **PUBLISHING A COLLECTION** documentation for further details) and choose either Hide, Show or Toggle Hide/Show as appropriate.



## 5. LAYERS AND STUDENT, TEACHER AND AUTHOR MODE

When a file is published, layers will be hidden or shown as they are prior to publication.

In student and teacher mode, layers cannot be distinguished or manipulated. Students will only see the page, while teachers will see the page and the margin. See the [CABRI MODES](#) documentation for further details.

In the example, the layer names “student1”, “student2”, “teacher” etc have been used only to organize the work: to clarify what the student should experience, what the teacher should be able to change, what calculations should be hidden, etc.

They are not explicitly related to the different modes.