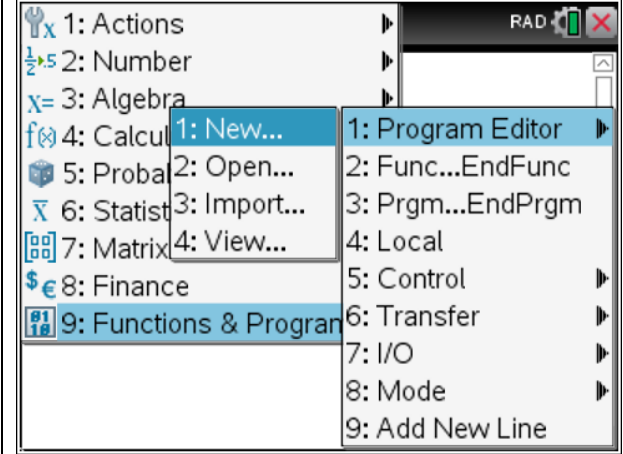
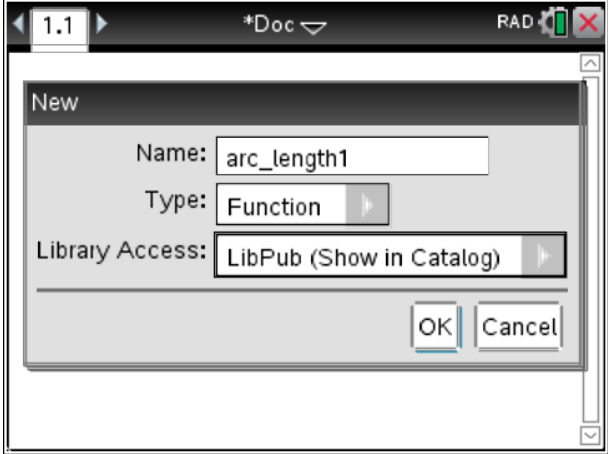
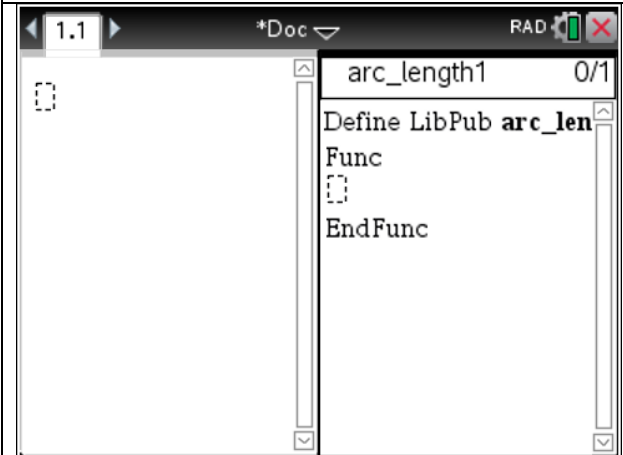
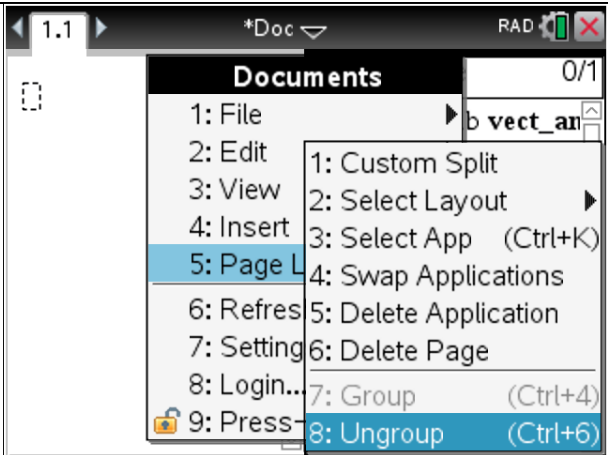
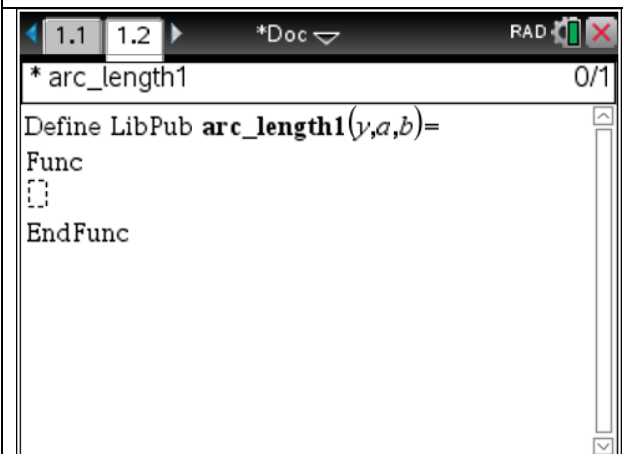
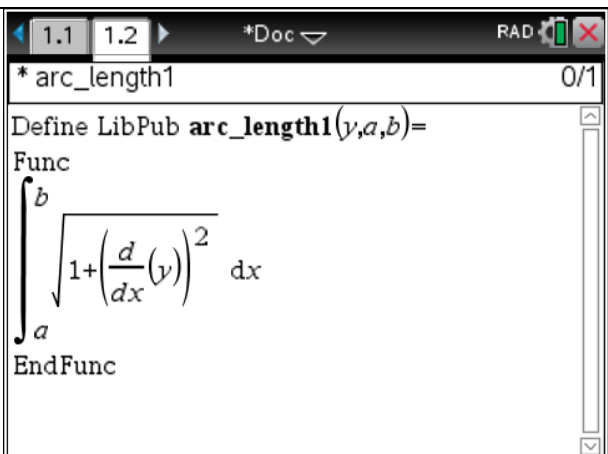
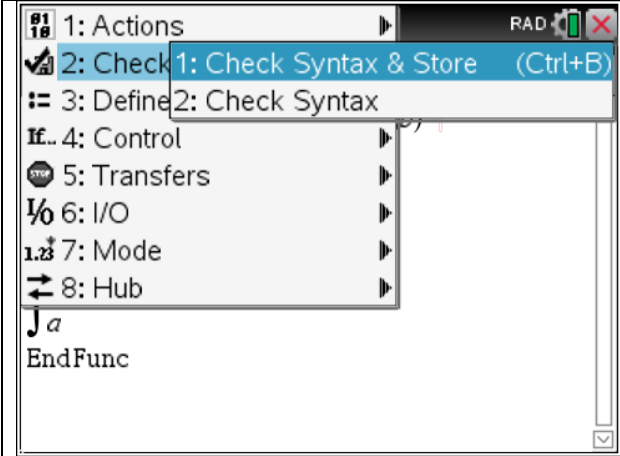
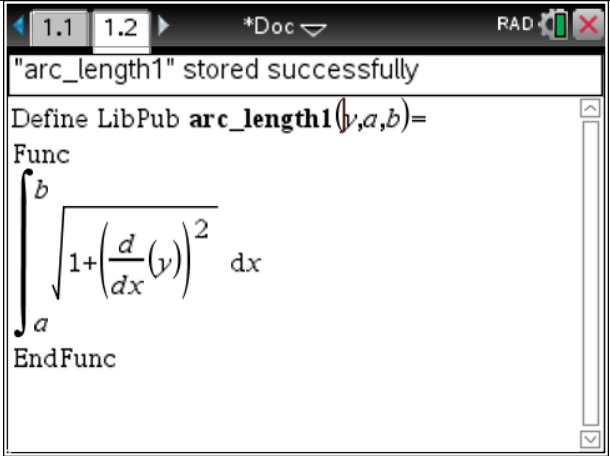

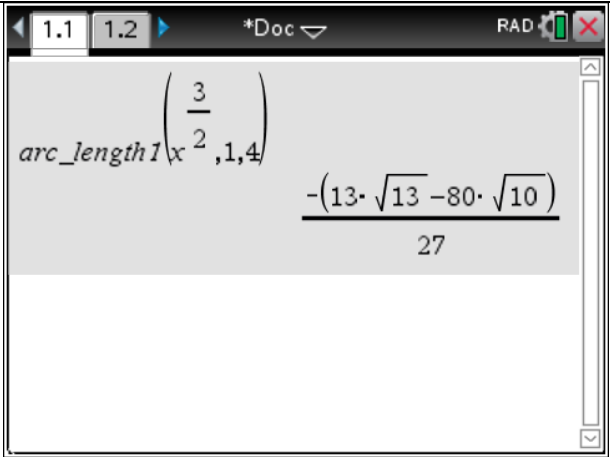
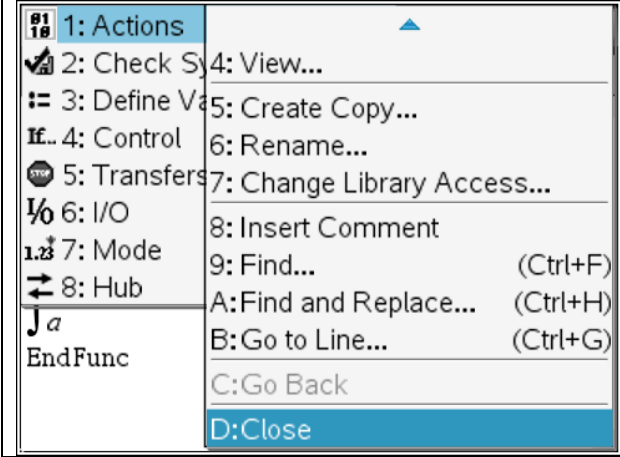
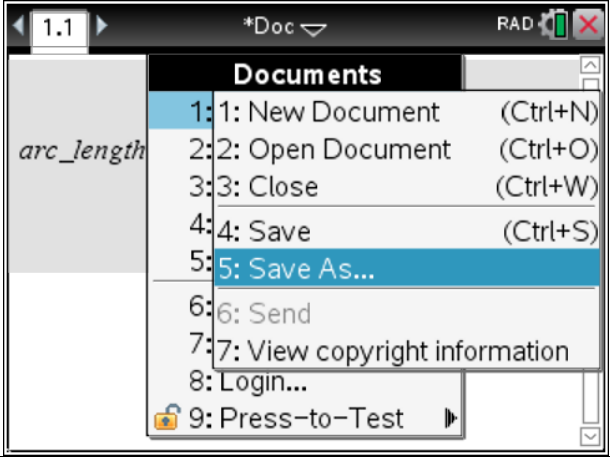
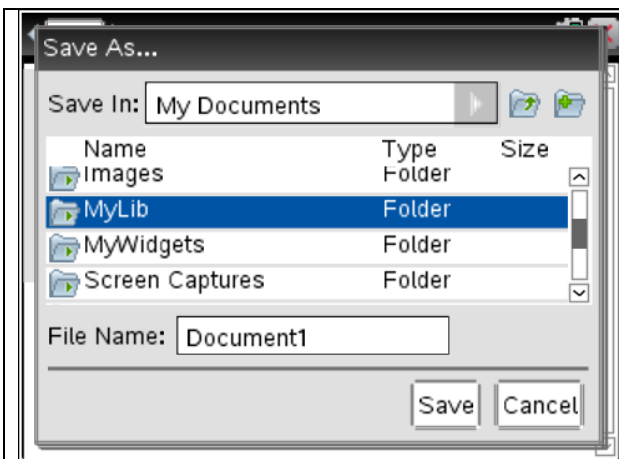


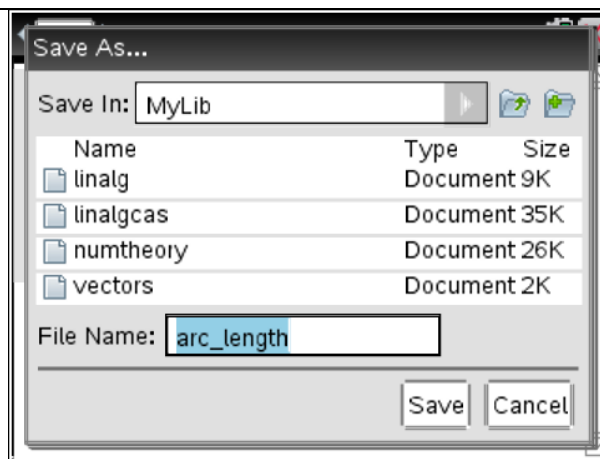
Creating Functions – Arc Length

	
<p>Open a Calculator page.</p> <p>Press menu > Functions & Programs*</p> <p>> Program Editor > New.</p> <p>*Alternatively, press ctrl + I > Programming.S</p>	<p>In the Name: field, enter arc_length1.</p> <p>In the Type: field, select Function.</p> <p>In the Library Access: field, select LibPub (Show in Catalog).</p>
	
<p>If the programming window appears in a split screen, ungroup the windows.</p>	<p>To do this, press doc > Page Layout > Ungroup to view the separate screens (shortcut ctrl + 6).</p>
	
<p>Go to page 1.2 and enter the parameters shown.</p>	<p>Enter the integral shown. (Note – the right hand brackets may not be automatically inserted.)</p>

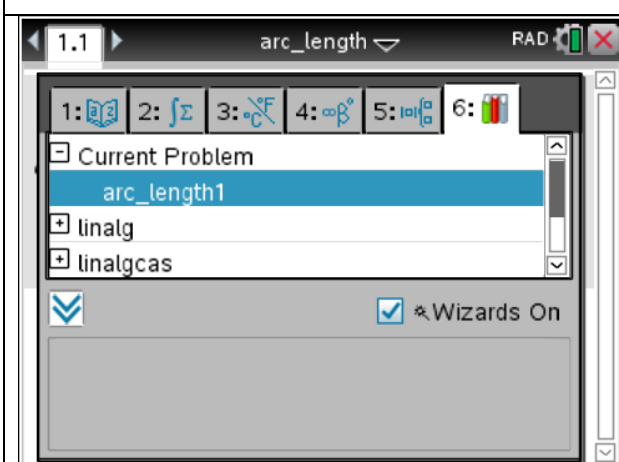
	
<p>Press menu > Check Syntax & Store > Check Syntax & Store.</p>	<p>If the syntax is correct, the message ‘stored successfully’ will appear at the top of the screen.</p>
	
<p>Move to page 1.1. Press the var key and select arc_length1.</p>	<p>Input three parameters and press enter. The arc length will be displayed.</p>
	
<p>Move to page 1.2. Press Actions > Close.</p>	<p>Press the doc key and select Save As.</p>



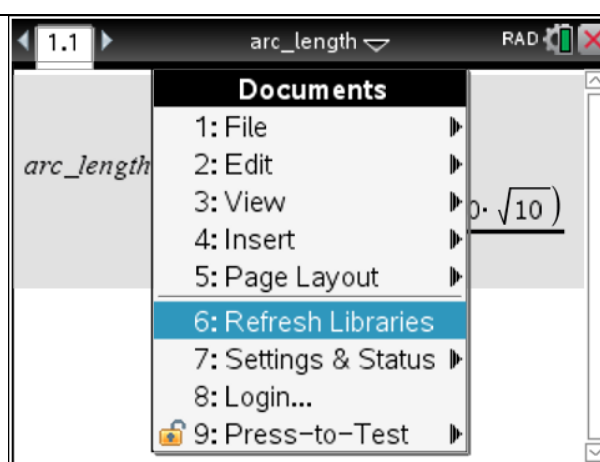
Scroll down to select the **MyLib** folder (this is important).



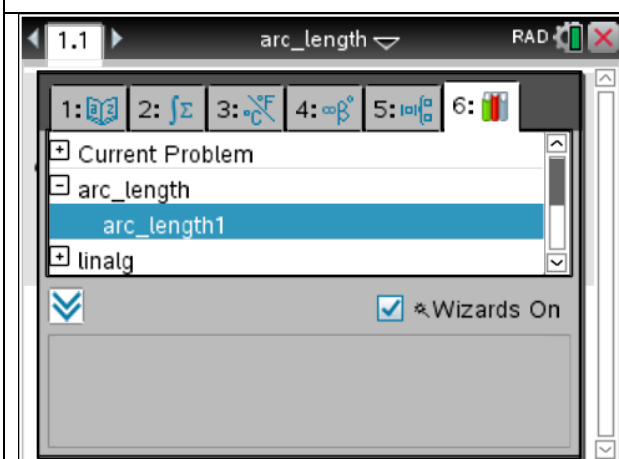
Enter a name for the document (e.g. **arc_length**).



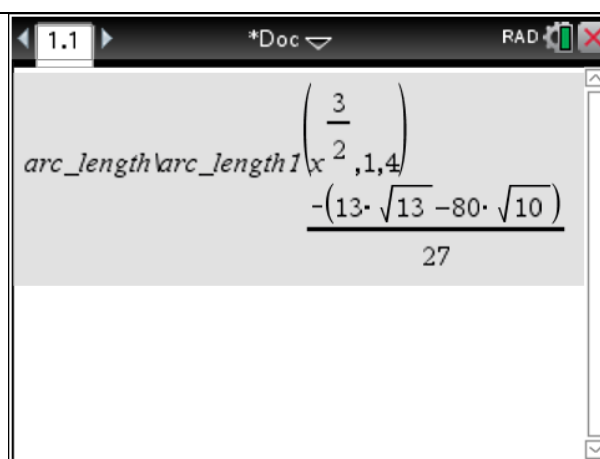
Press the **catalog** key and select tab **6**.
When you select **Current Problem**, the name of the function will be displayed.



Press the **doc** key and select **Refresh Libraries** (this is important).



Open a **Calculator** page in a new document.
Press the **catalog** key and select tab **6**. Select **arc_length** then the **arc_length1** function.



The **arc_length\arc_length1** function is now accessible in the catalog for all documents.

(Note – you can verify your output using the **arcLen** command in the **Calculus** menu or the **catalog**.)

In the same **arc_length** document, try writing a function to find the arc length for parametric equations.