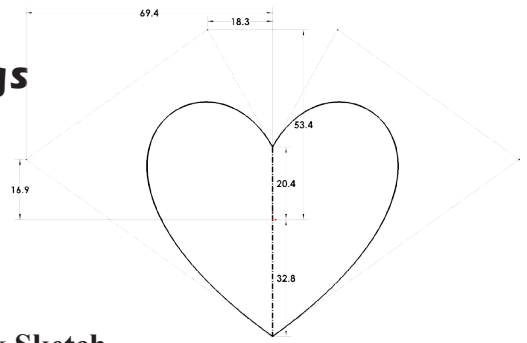




Rings and Things Heart



A. Sketch Vertical Centerline.

Step 1. Click File Menu > New, click **Part Metric** and OK.

Step 2. Click **Top Plane**  in the Feature Manager and click **Sketch**  from the Context toolbar, **Fig. 1**.

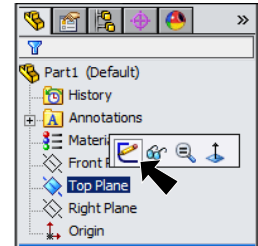




Fig. 1

Step 3. Click **Centerline**  (S) in the **Line flyout**  on the Sketch toolbar.

Step 4. Draw a vertical centerline line away from the Origin



as shown in **Fig. 2**.

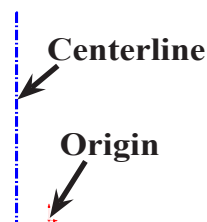


Fig. 2

Step 5. **Right click drawing and click Select** from menu to unselect Centerline tool.

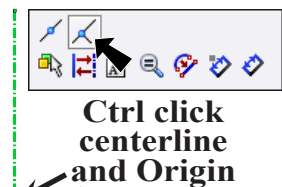



Fig. 3

Step 6. **Ctrl click vertical centerline line and Origin**



to select both, **Fig. 3**. Release Ctrl key and click **Make Coincident**  on the Context menu.

Step 7. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 8. Dimension from Origin **20.4** and **32.8** as shown in **Fig. 4**.

Step 9. Click Zoom to Fit  (F) on the View toolbar.

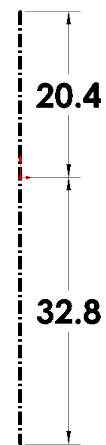



Fig. 4

B. Save as "HEART".

Step 1. Click File Menu > Save As.


Step 2. Key-in **HEART** for the filename and press ENTER.

C. Style Spline.

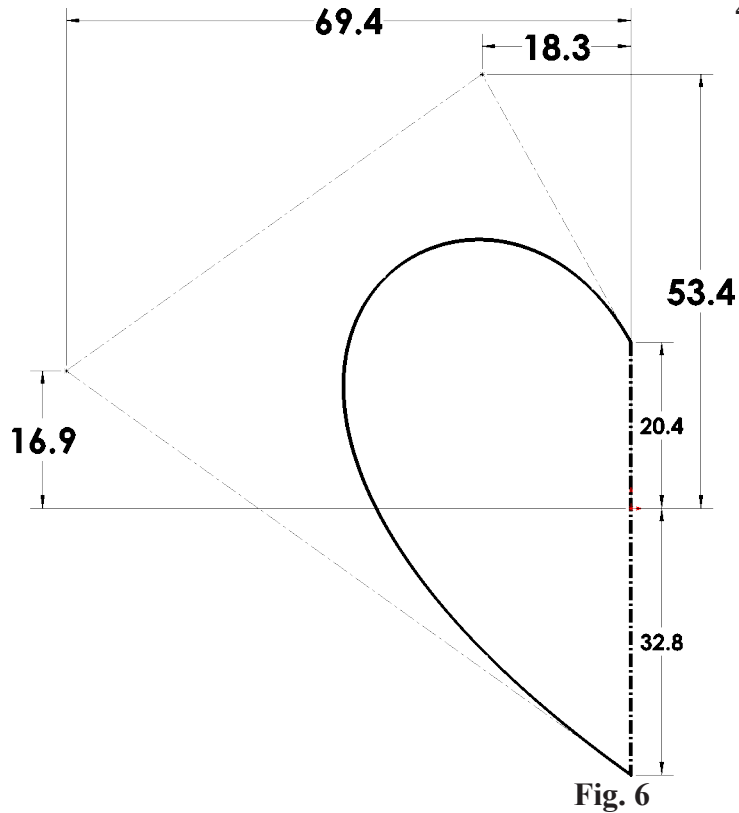
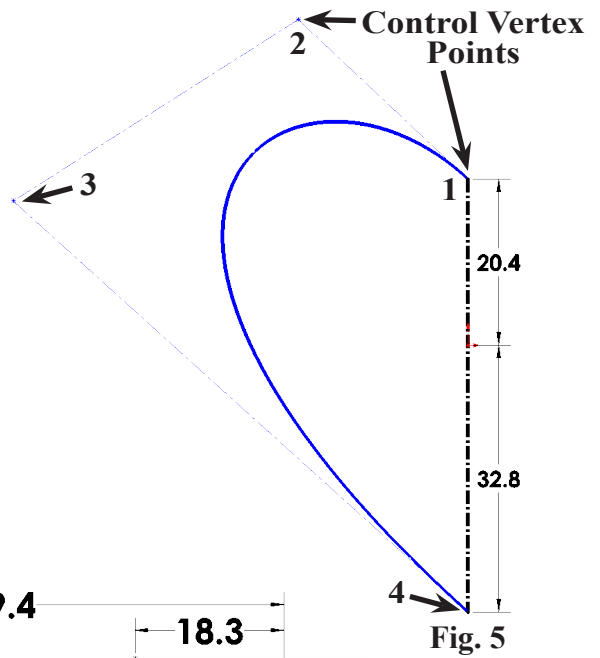
Step 1. Click **Style Spline**  in the **Spline** flyout  on the Sketch toolbar.

Step 2. Draw a **4 control vertex point Spline**, **Fig. 5**. Press Escape to end spline.

Step 3. Click **Smart Dimension**  (S) on the Sketch toolbar.

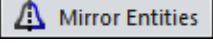
Step 4. Dimension the **control vertex points** to the **Origin** , **Fig. 6**.

Step 5. Save. Use **Ctrl-S**.

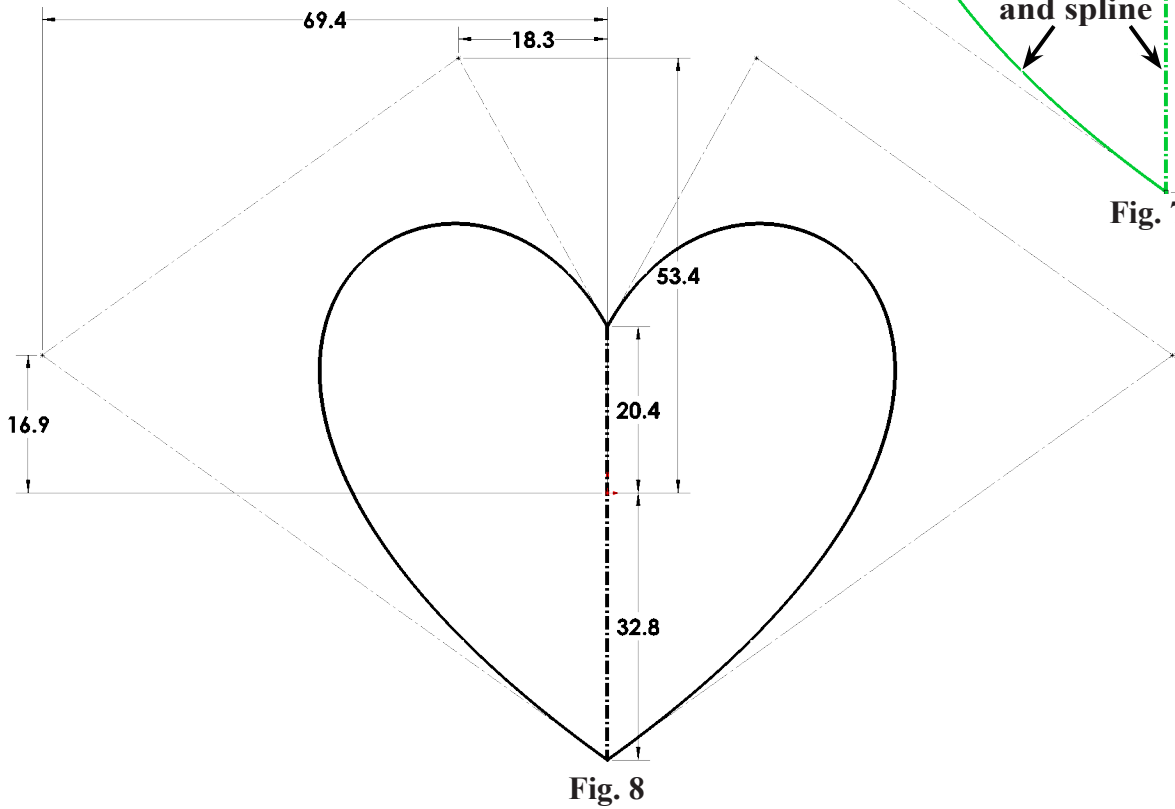
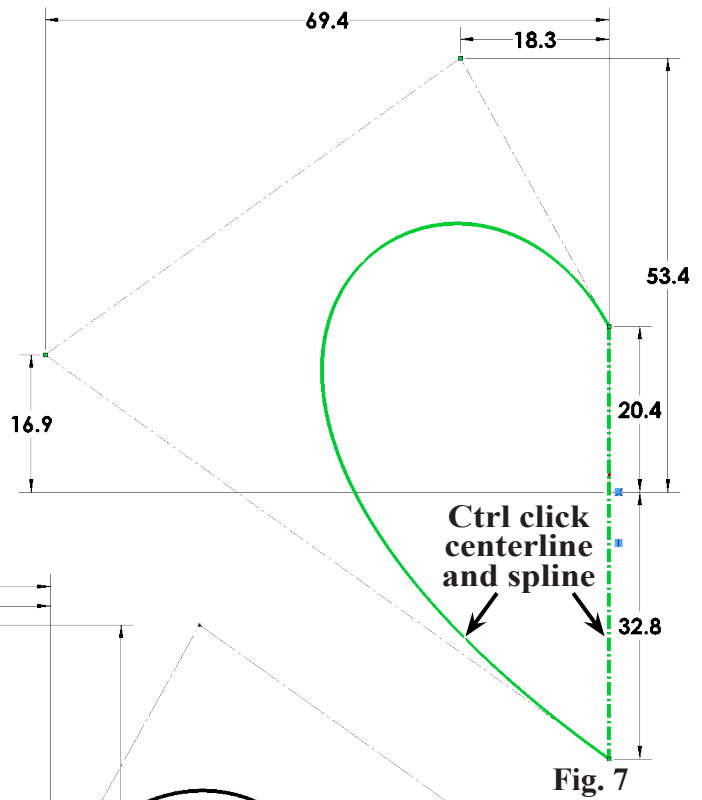


D. Mirror Spline.

Step 1. **Ctrl click Spline and vertical centerline** to select both, **Fig. 7**.
To Ctrl click, click Spline, then hold down Ctrl key and click vertical centerline.

Step 2. Click **Mirror Entities**
 **Mirror Entities** on the Sketch toolbar, **Fig. 8**.

Step 3. Save. Use **Ctrl-S**. **Important to Save here.**



E. Make Block.

Step 1. Click Tools Menu > Blocks > Make.

Step 2. In the Make Block Property Manager set:
under Block Entities, **Fig. 9**

drag a “trend to left - more liberal” selection across to select both splines and centerline, Fig. 10
expand Insertion Point, Fig. 9

drag Insertion Point Manipulator to Origin, Fig. 10 and Fig. 11

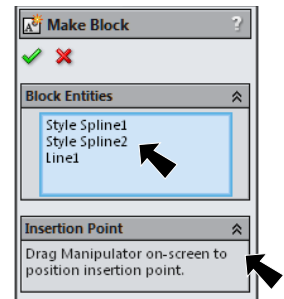


Fig. 9

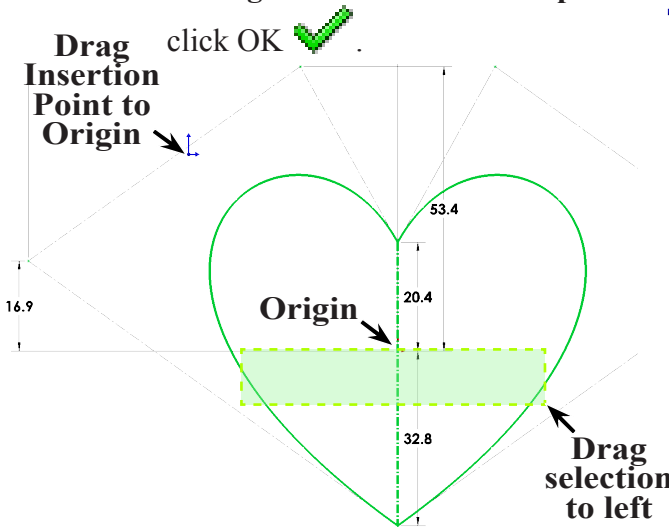


Fig. 10

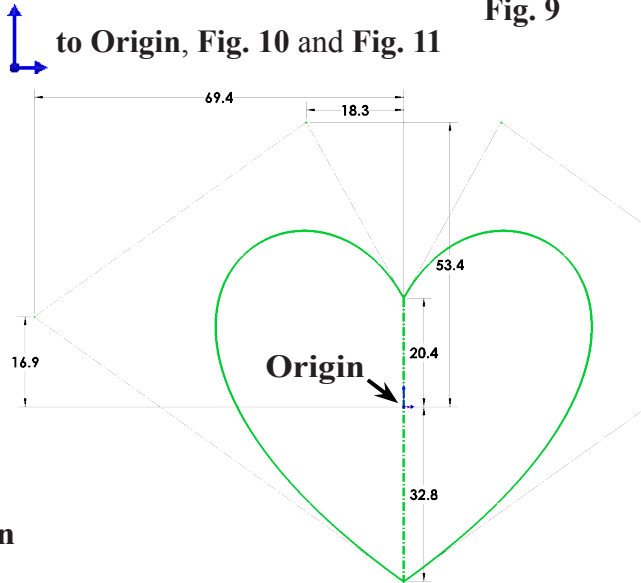



Fig. 11

F. Save Block.

Step 1. **Right click Block1-1**  in the Feature Manager and click **Save Block** on the Context toolbar, **Fig. 12**.

Step 2. In the Save As dialog box, **Fig. 13**

key-in **HEARTmm** for the filename
navigate to **My Documents/Rings and Things** folder
click Save button.

Step 3. **Do Not Save Heart part file** with the Block as the Block deleted
all dimensions and relations in the sketch.
Or you can undo creating the Block.

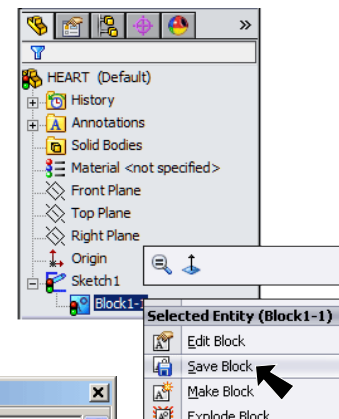


Fig. 12

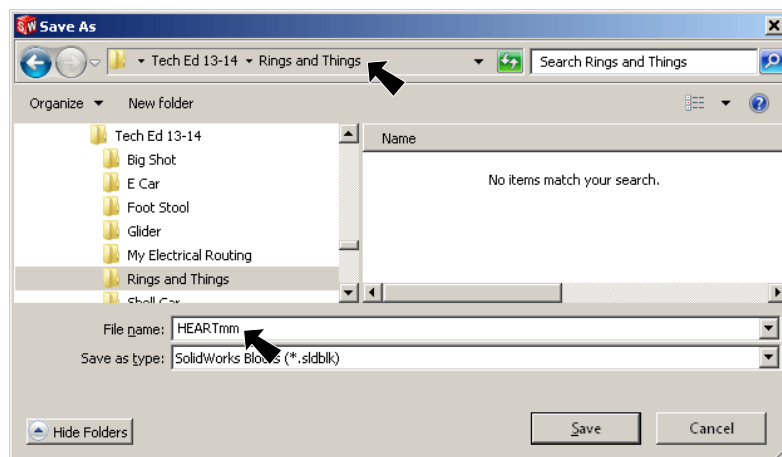


Fig. 13