

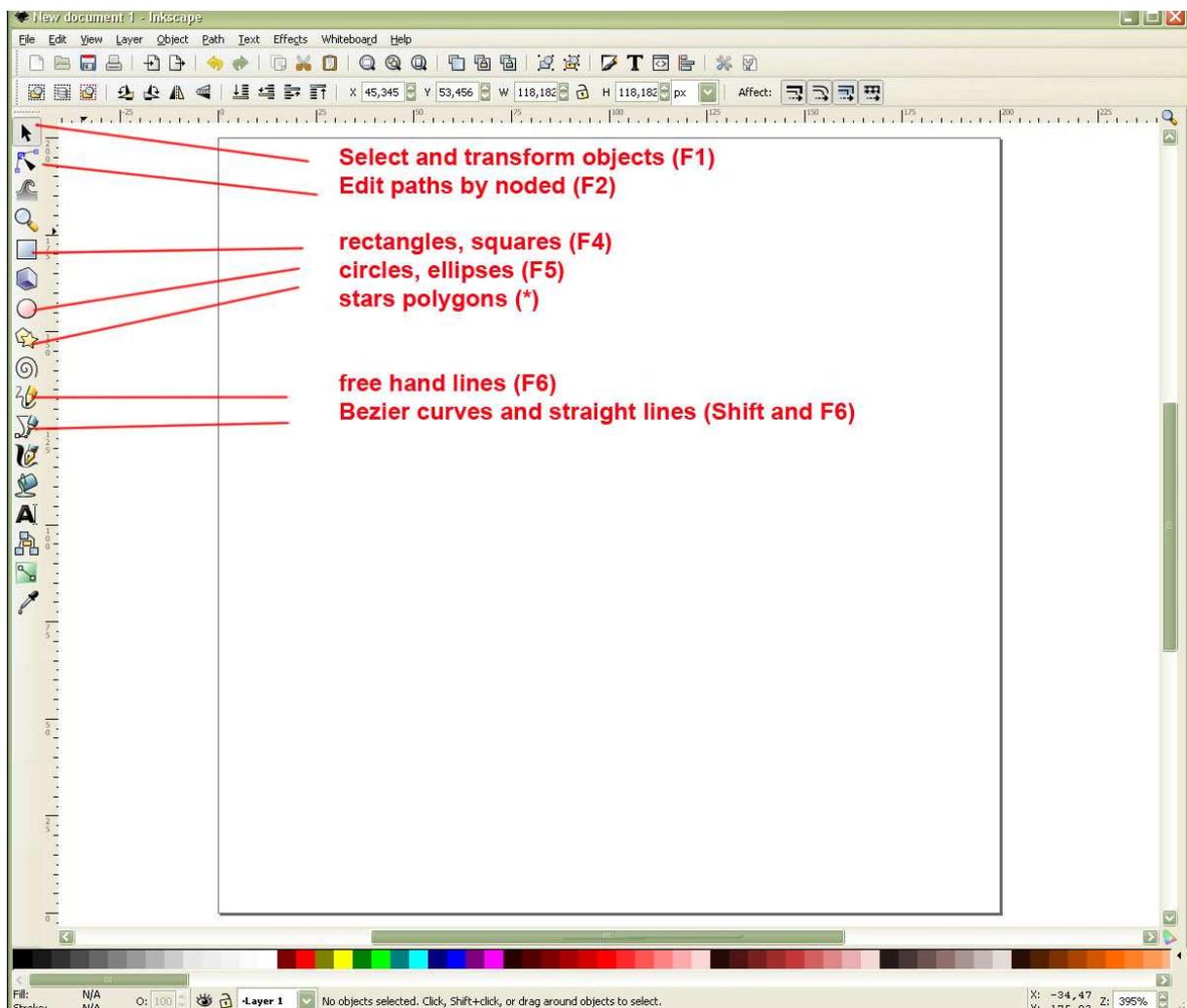
# Creating simple map icons with Inkscape

## A tutorial by Sapiento

This tutorial will show you how to create simple and iconic map symbols in Inkscape, a free vector program.

### Creating a jewel

Let's have a look to the Inkscape main mask and the most important tools we will need for the first part.



First go to File > Document properties > page and set custom size to 200 x 200 px or anything you find useful.

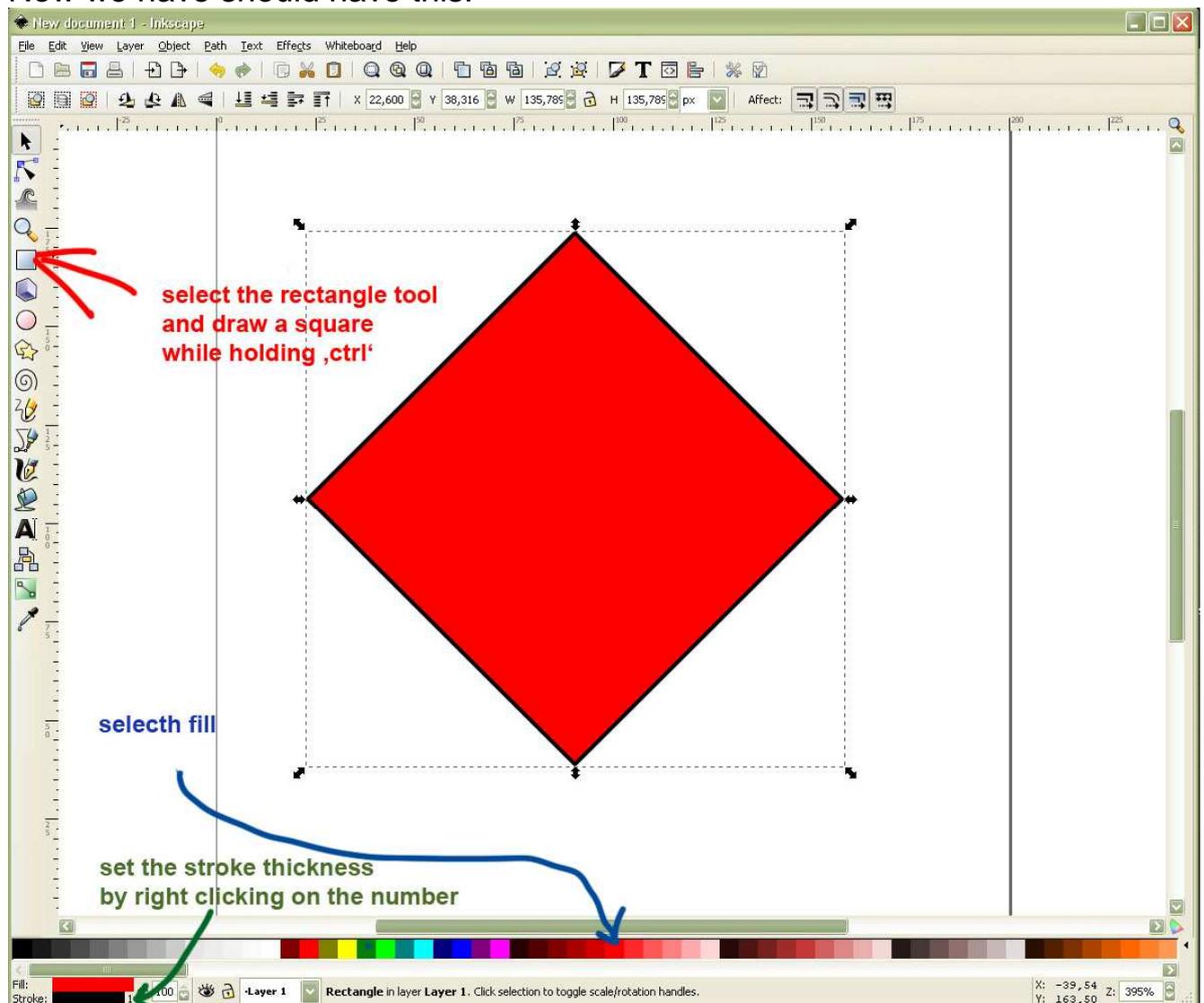
Then select the 'snap' flag > enable snapping, 'What snaps' > Nodes, then 'snap to object', mark 'Snap to paths' and 'Snap to nodes', and set snap distance to 50 or anything. This will ensure that our shapes and

lines connect more easily and don't drift away. Nevertheless, we will probably have to correct one or two times if the nodes connect in the right way.

Now we select the rectangle tool (F4) and with holding ctrl, we draw a square in the middle of our page. If you don't hold ctrl you can draw a rectangle with a different ratio of height:width (the same is true for circles: hold ctrl and draw – circle, don't hold ctrl – ellipse).

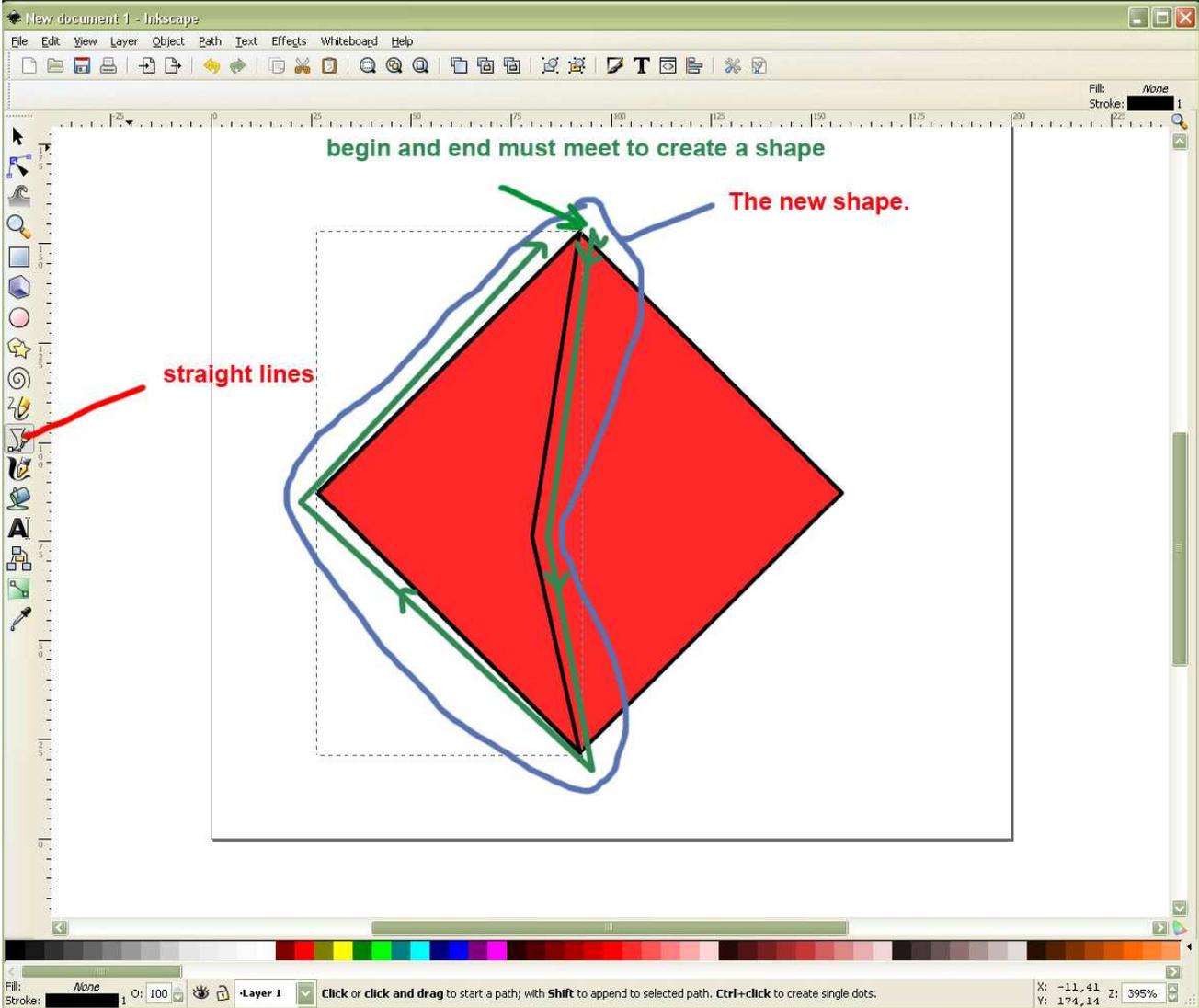
At the bottom of the page select the fill, here a red and set the line to 1 px. (If you right-click on the fields right beside 'Fill' and 'Stroke' you open the edit menu for each, important e.g. for deleting, inverting stroke and fill and other things). Now select the square, wait a second and click a second time (no double click!, that selects the rectangle tool) on the square and the arrows of the selected square change so that you can rotate the square. By holding 'ctrl' the object rotates in 15° steps. Rotate the square until it stand on one of its corners.

Now we have should have this.

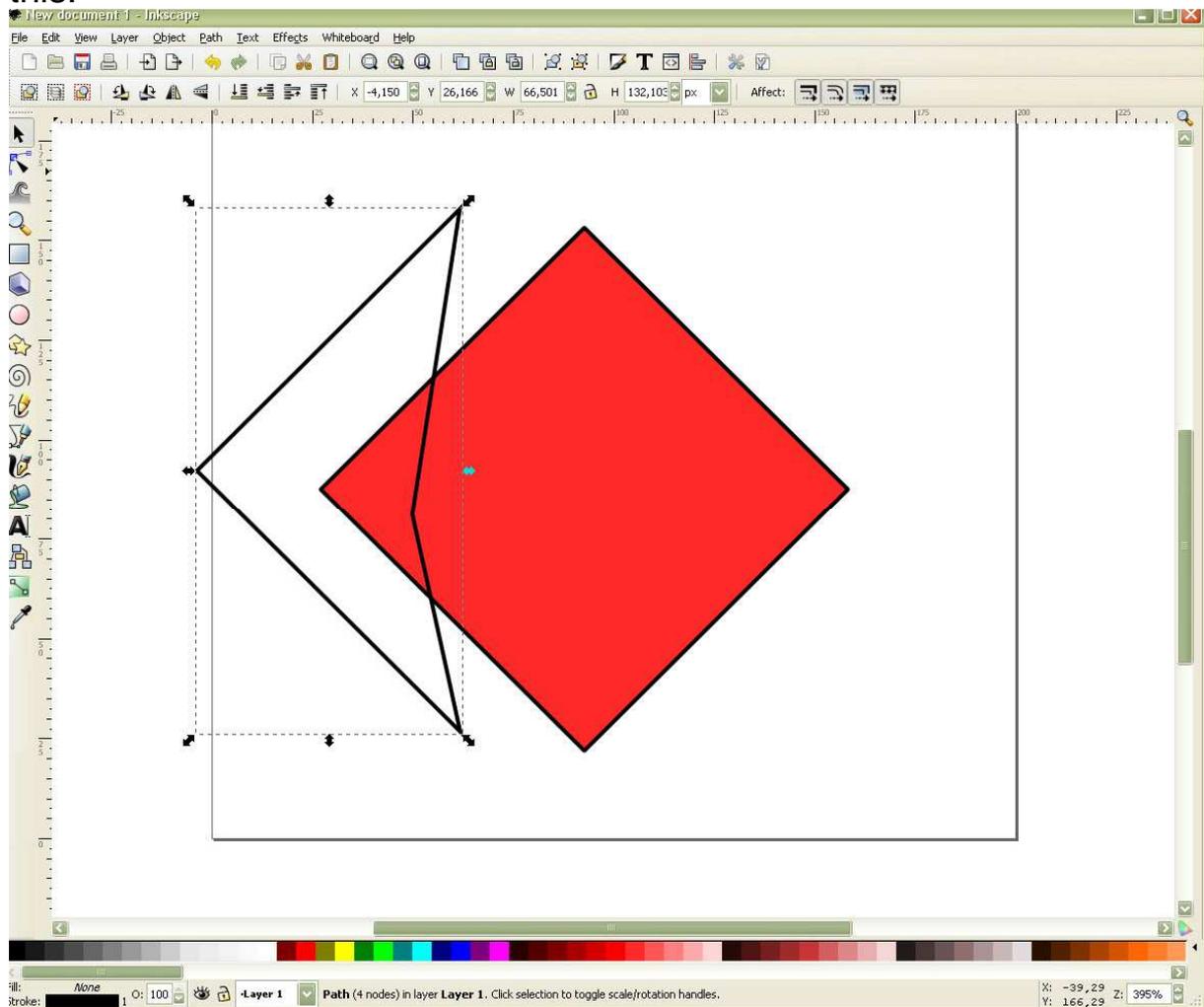


Now lets add some 'dimension' to the jewel. I want to create an octahedron, a double pyramide. Click on the 'straight lines tool and draw a 'shadowed' area on the left side. Left-clicks create the different nodes. Click the last time on the first node and you have closed shape. (An open ended path is finished with a right-click).

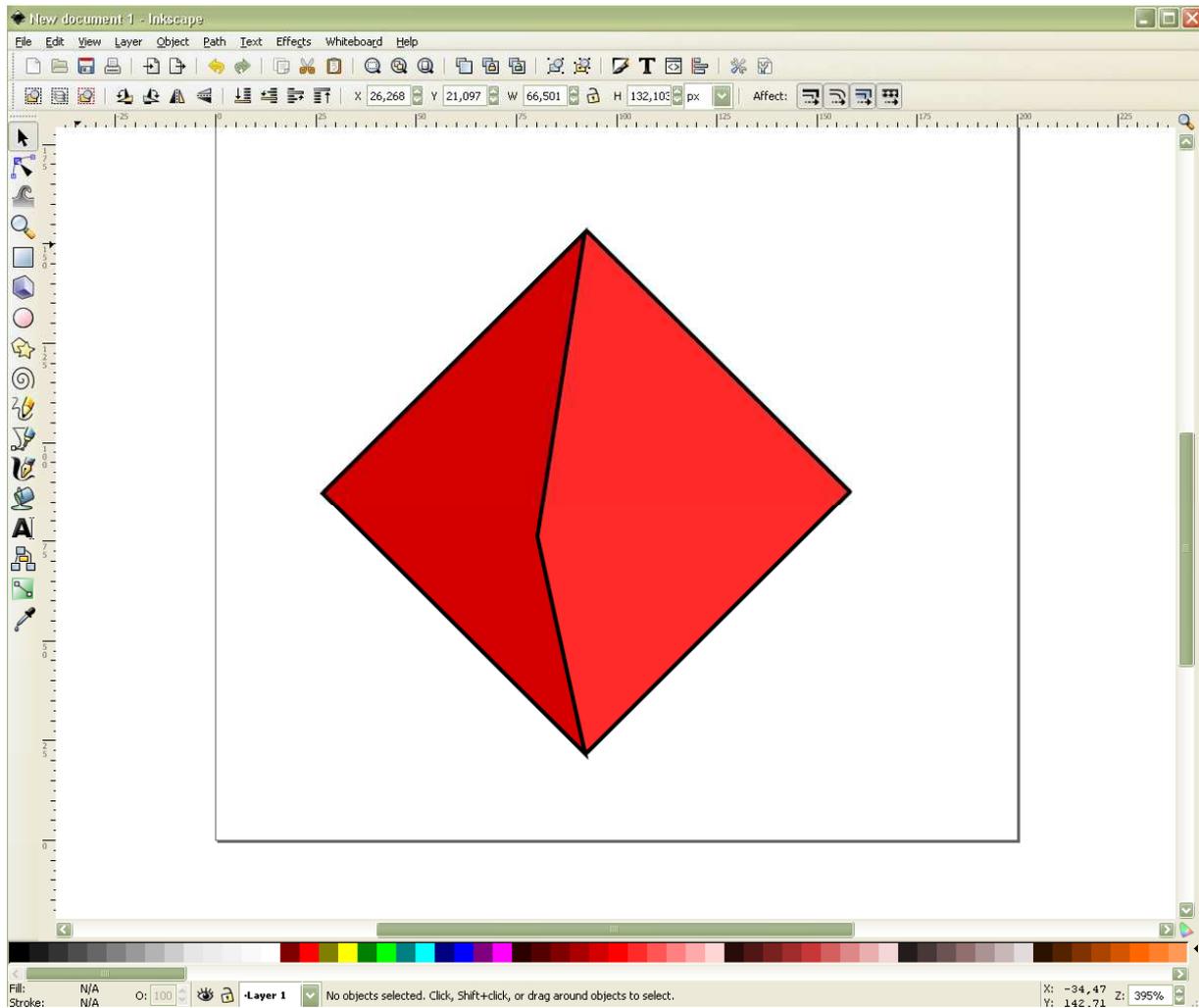
We should have now this:



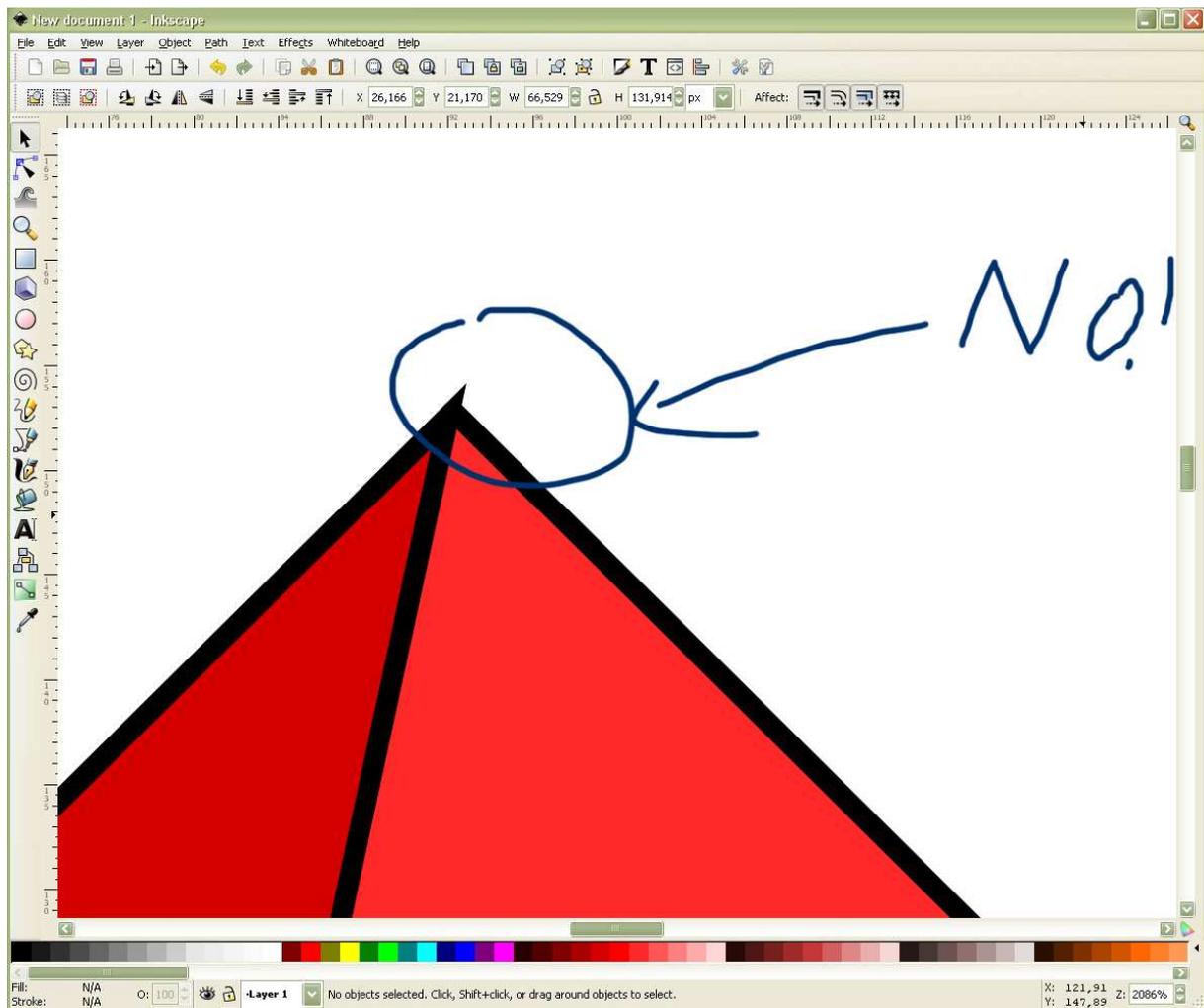
If I would draw away the new shape (don't do it now) it would look like this:



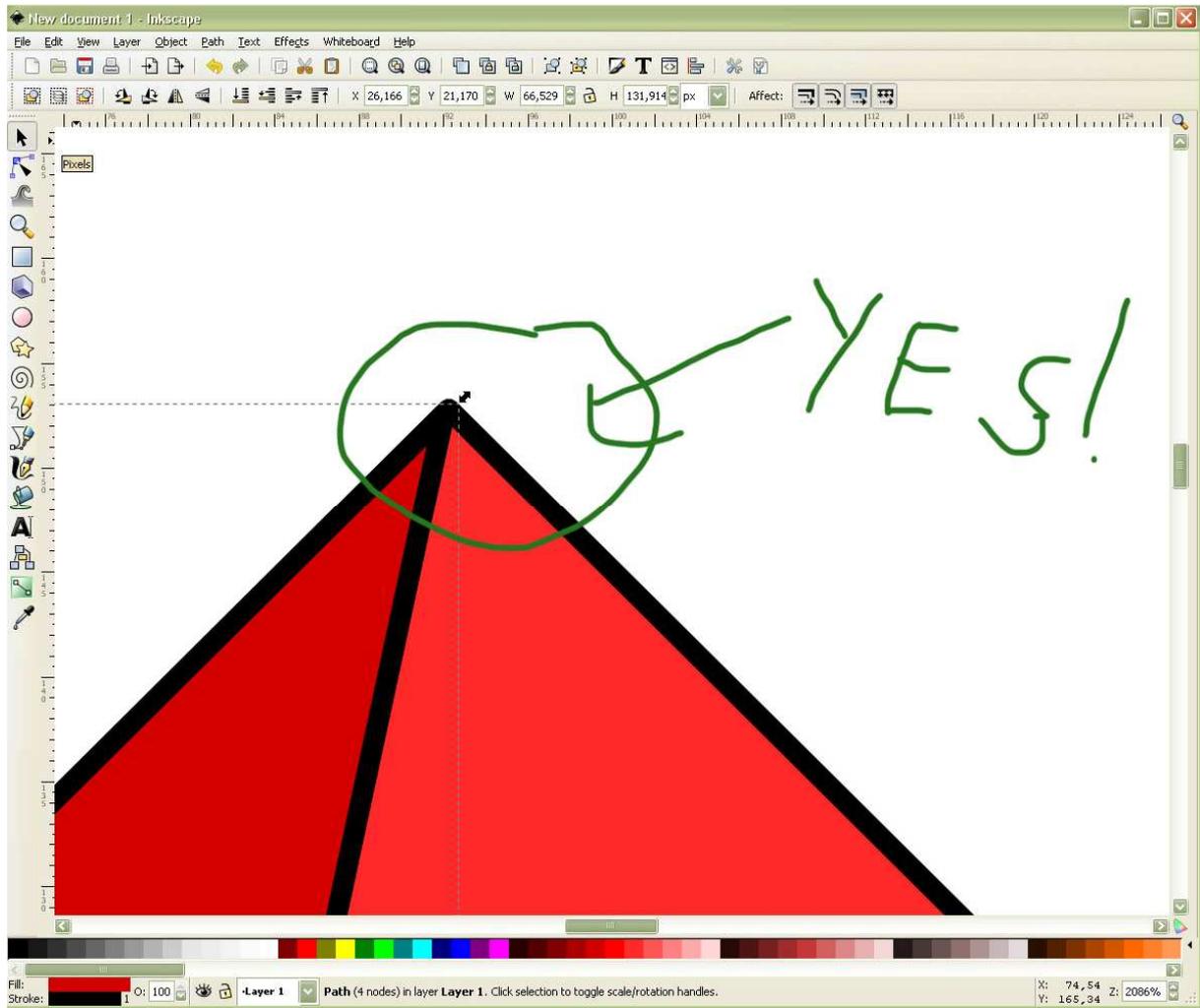
Select the new shape (if you not already have selected it) and click in the colours row below on a red that is darker than our original square:



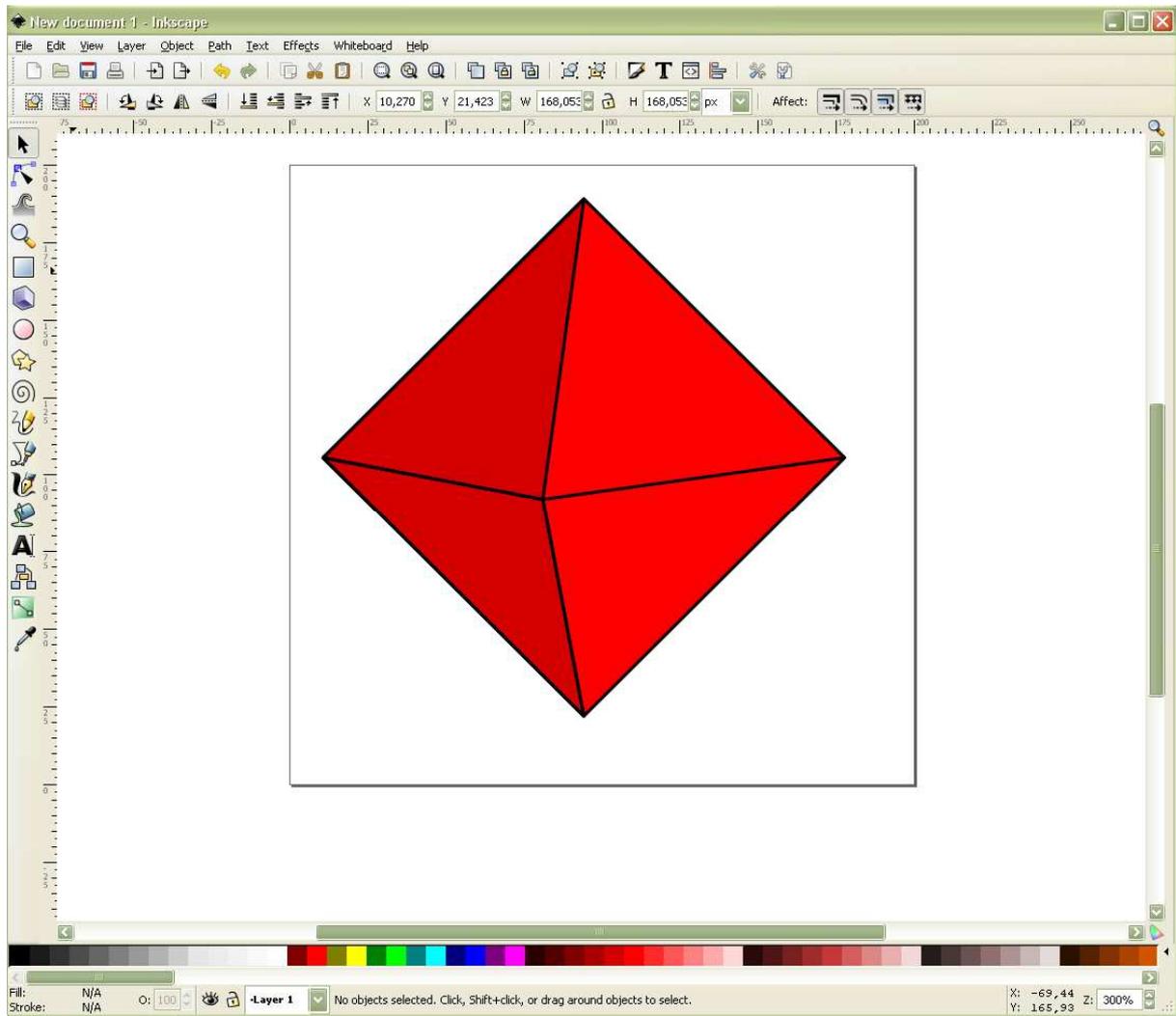
OK. But..what's this! The corner is not clean:



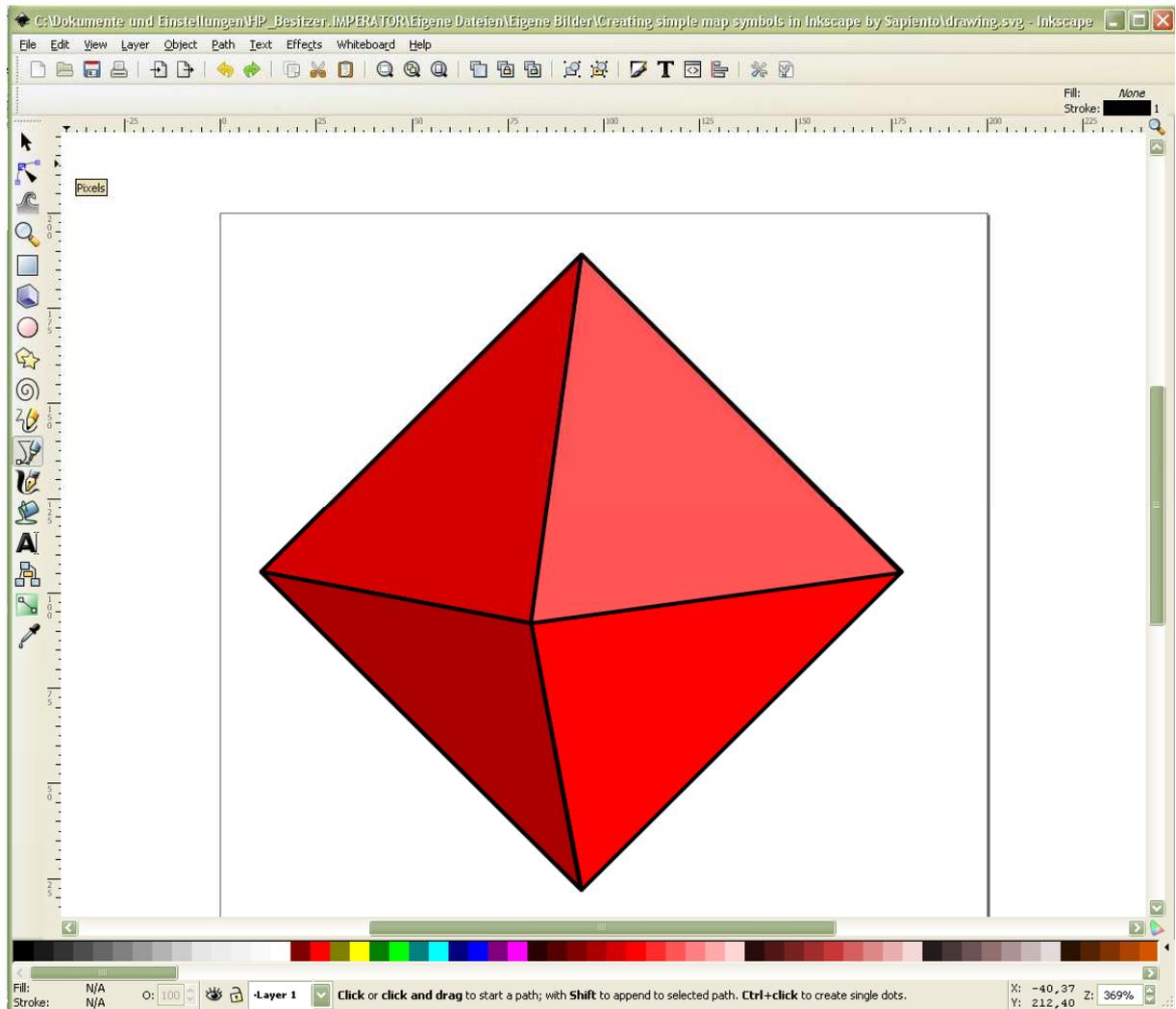
You can either correct this now or wait until you have completed the jewel and select then all shapes and correct this for all shapes simultaneously. Just for fun, let's correct it now for this shape. To make the corner smooth select the shape, right-click > fill and stroke > stroke style > Join: round join (middle button). Now we have a smooth corner.



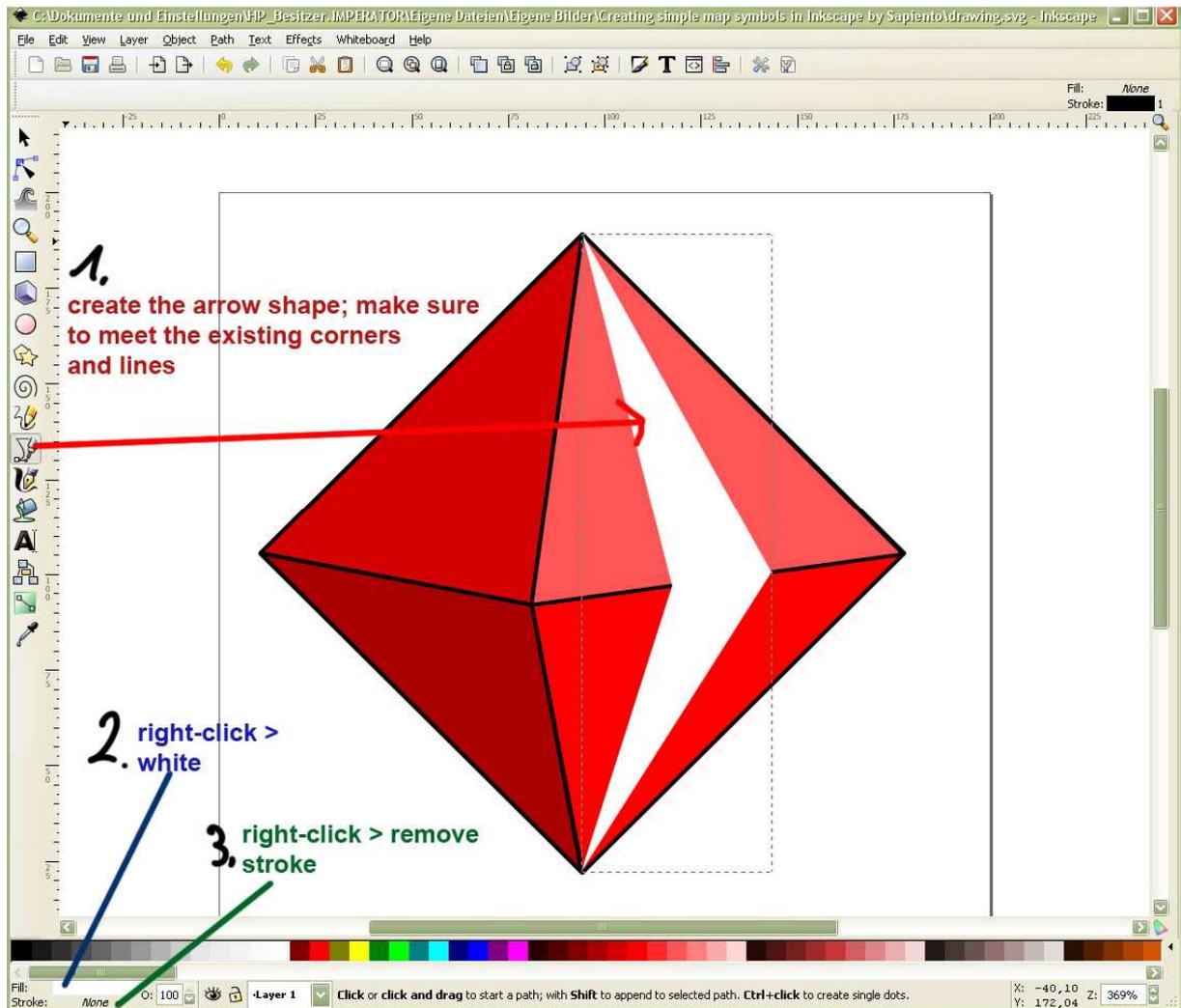
Now we add further 'dimension' to our jewel. Draw a horizontal broken line.



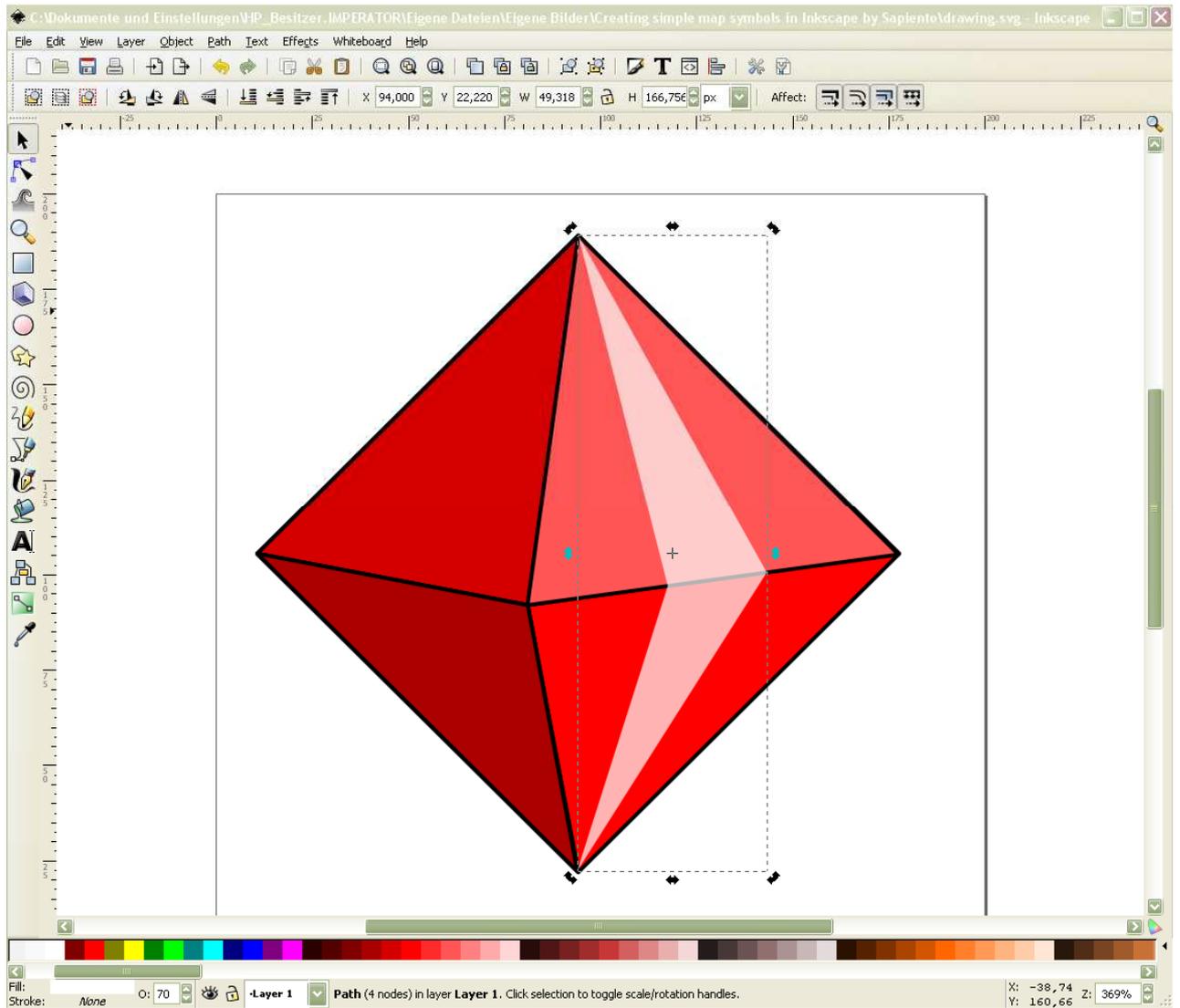
Now draw two triangles in the bottom left section with an even darker red fill and another in the upper right section with a brighter red. For this step, you could change the snap options 'Snap to object' and deselect 'Snap to paths'. This would ensure that the lines connect ONLY to nodes to make perfect, not-overlapping shapes. But it's not necessary; just make sure you hit the nodes which make the corners:



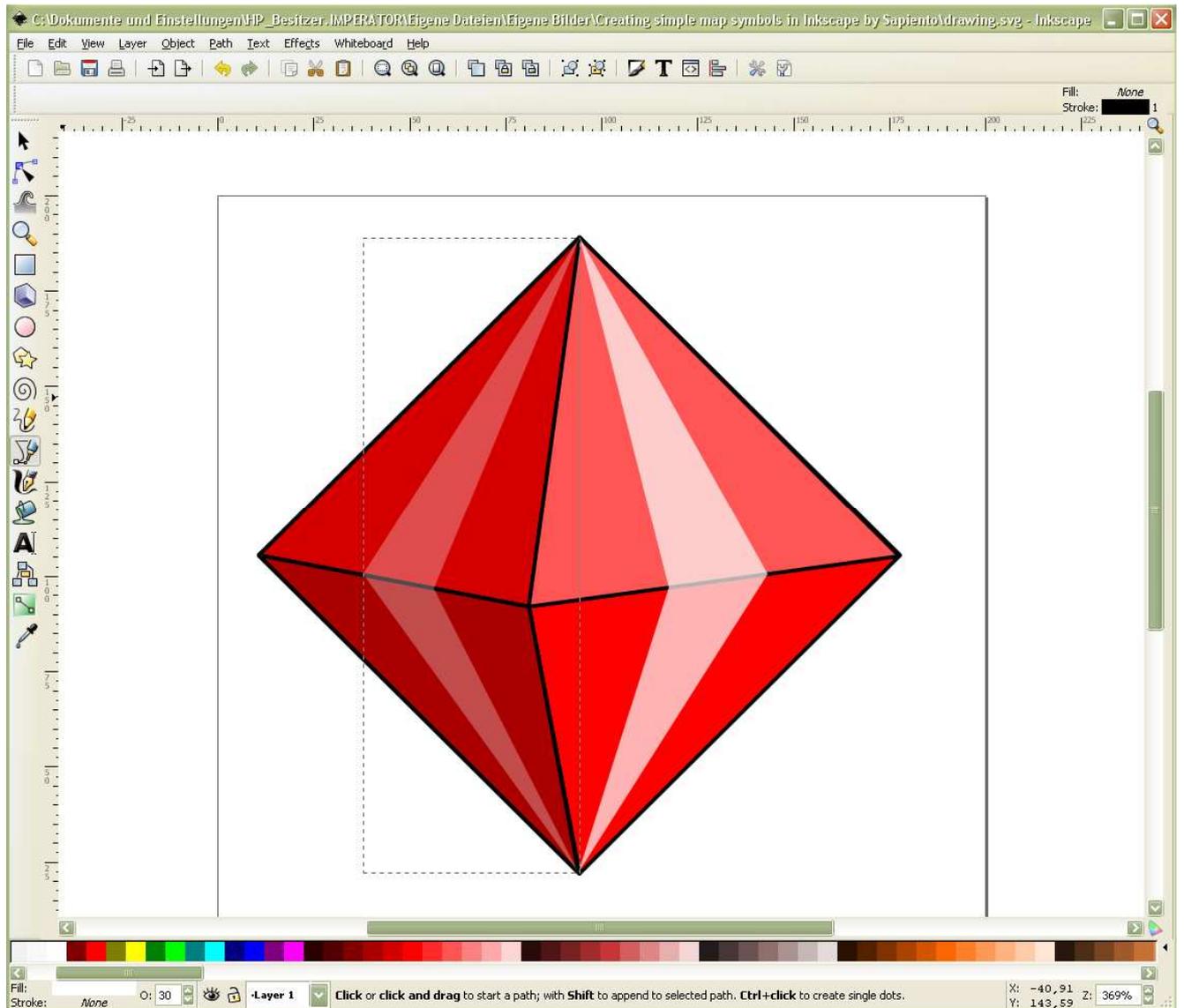
OK. We have a three-dimensional looking object. What we need now are reflections. For this, we create again an arrow-formed shape but narrower and with white fill and no stroke:



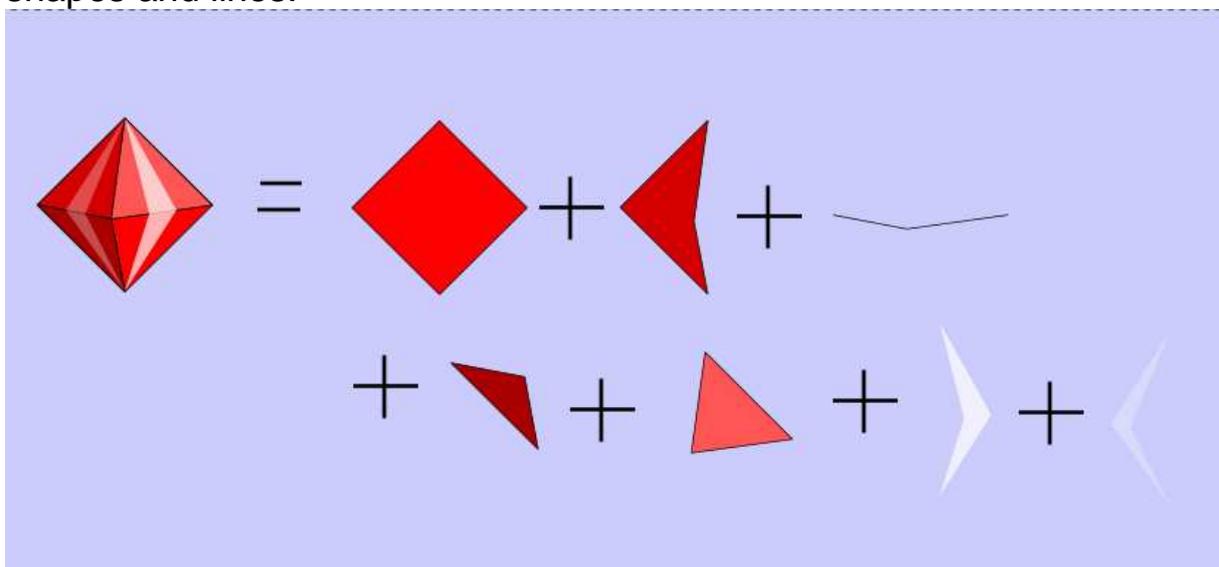
Now set the opacity (right beside 'Fill' and 'Stroke' in the bottom left, normally set at 100) and decrease it to a level you like. I choose 70:



Make the same for the left side, I choose opacity 30.

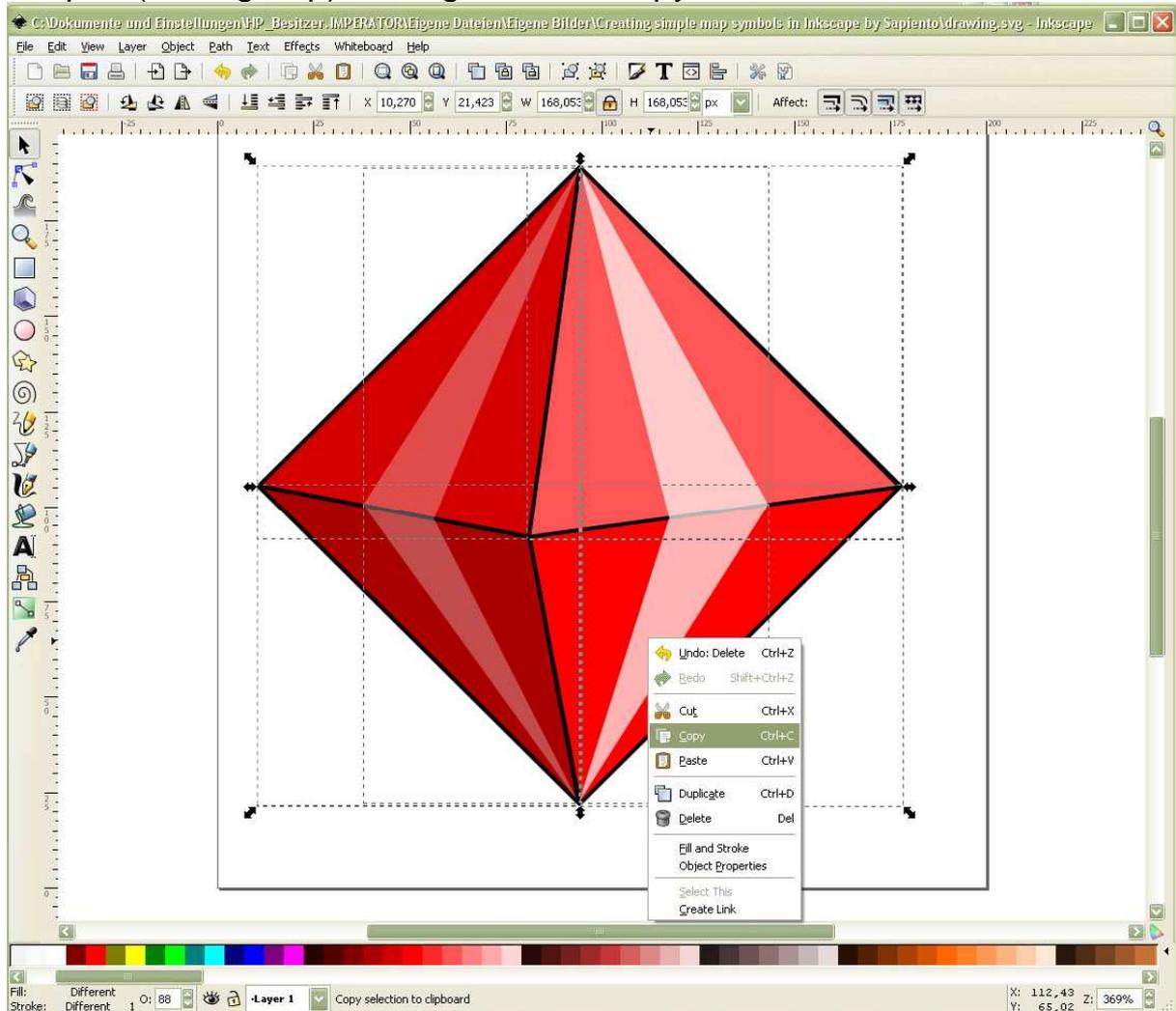


Finished! We have a jewel that is nothing else than a collection of shapes and lines:

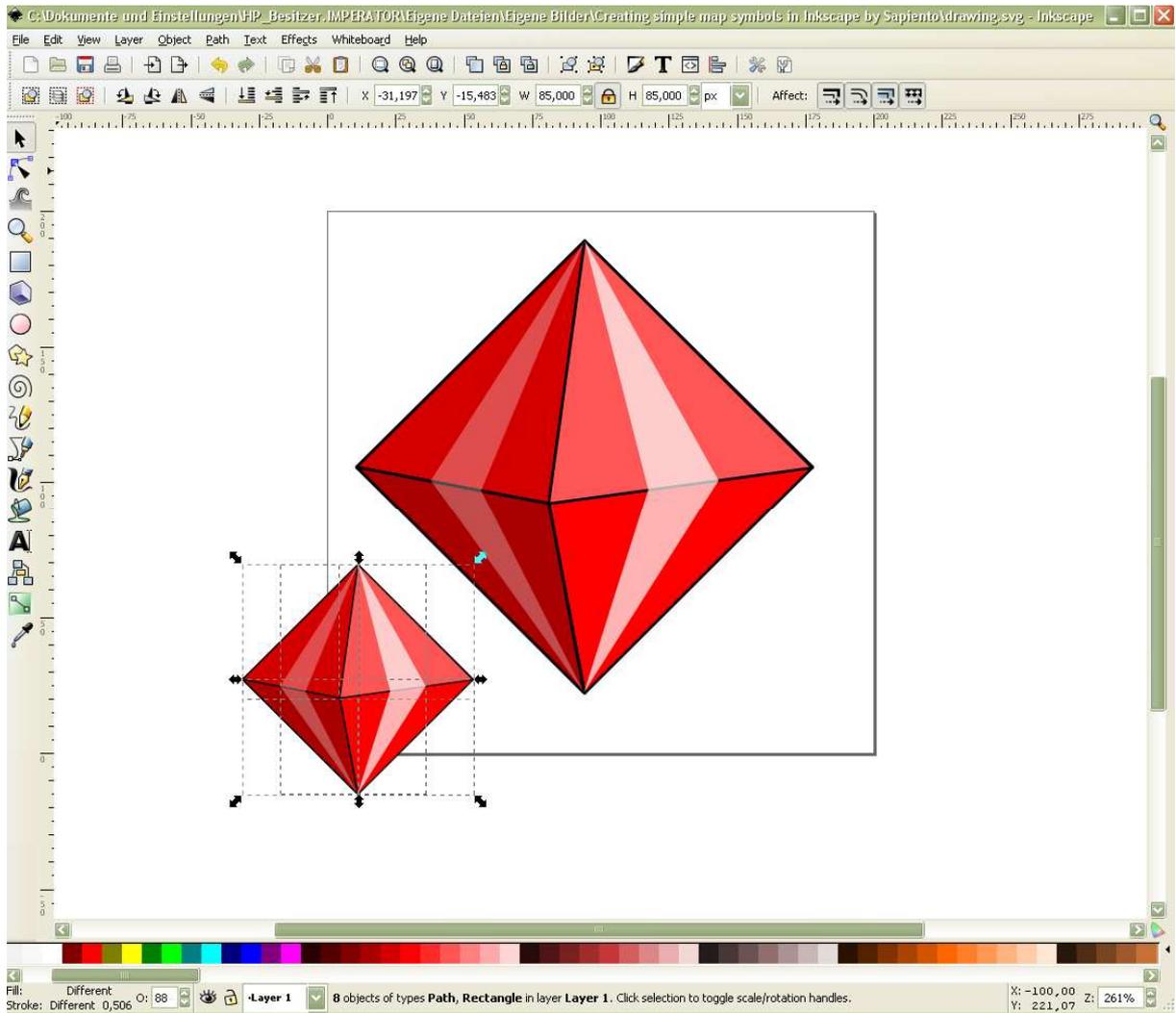


No you can draw a selection rectangle around the whole jewel, go Object > Group. Now all shapes are grouped.

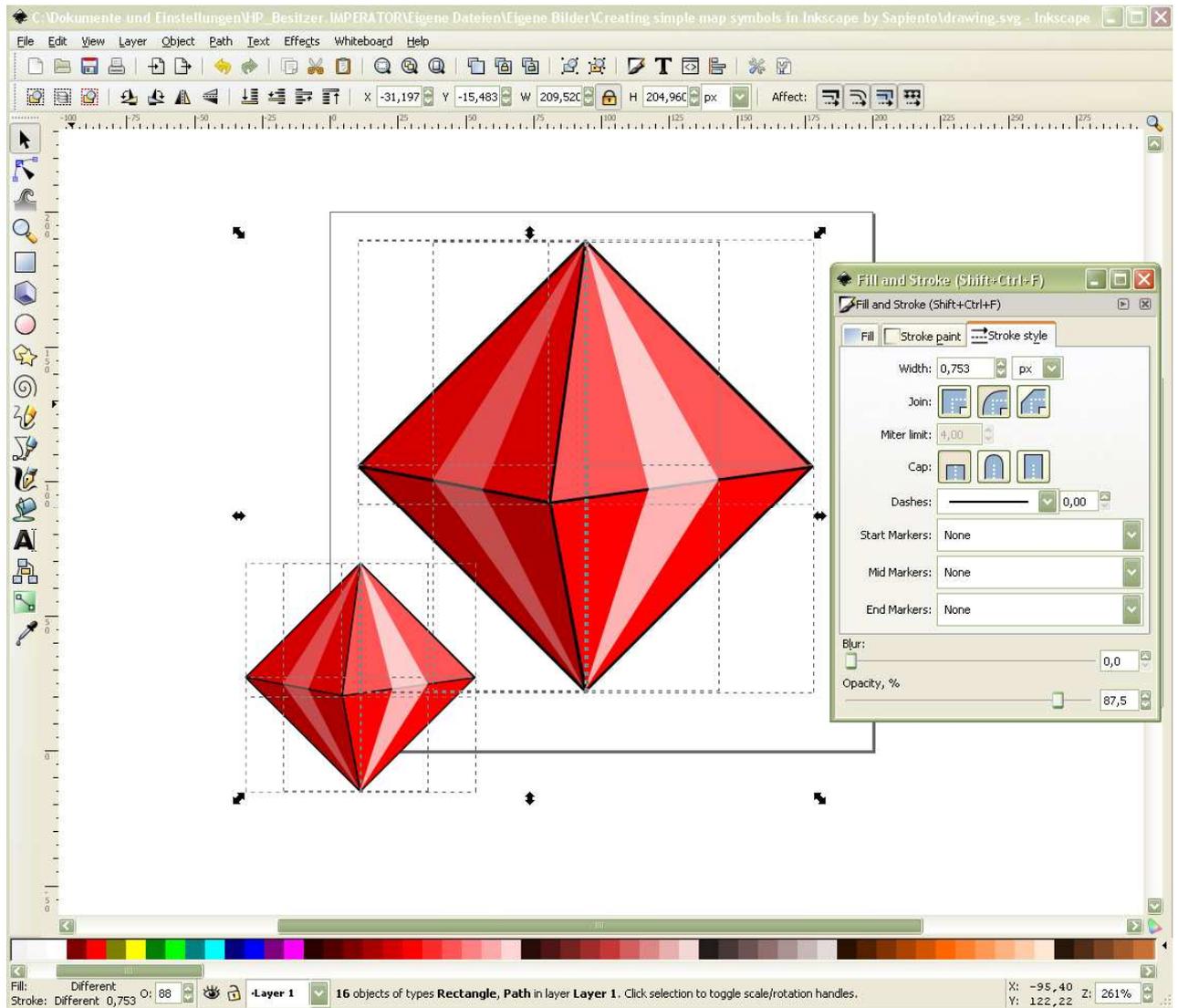
If you know that you would like to create more, different sized jewels (a field of jewels for example) but with the same stroke size, select all shapes (don't group) and right-click > copy



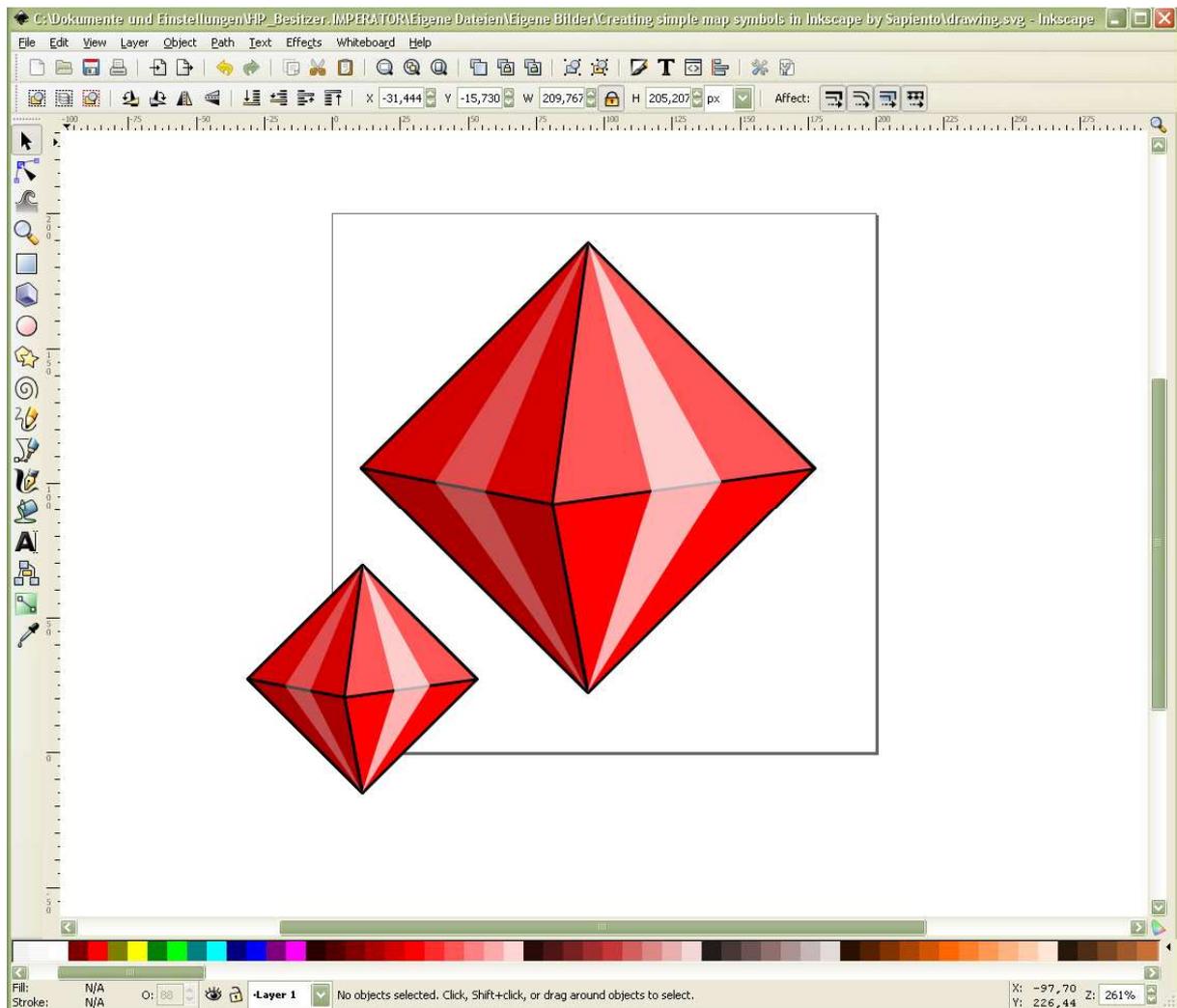
Then paste, click on the copy and decrease the size: in the command bar you have tools for reflecting the selected object, rotating it clock- and counter clockwise, lower and raise selections and for the size. Click on the lock symbol to keep the proportions of the copied jewel and then decrease the size by clicking on the left or right bottom small arrow or by typing the wished size manually in the number fields. I type 85 in the right field (for the height of the object) > Enter. The jewel is now decreased in size. I select the smaller jewel and draw it in the bottom left.



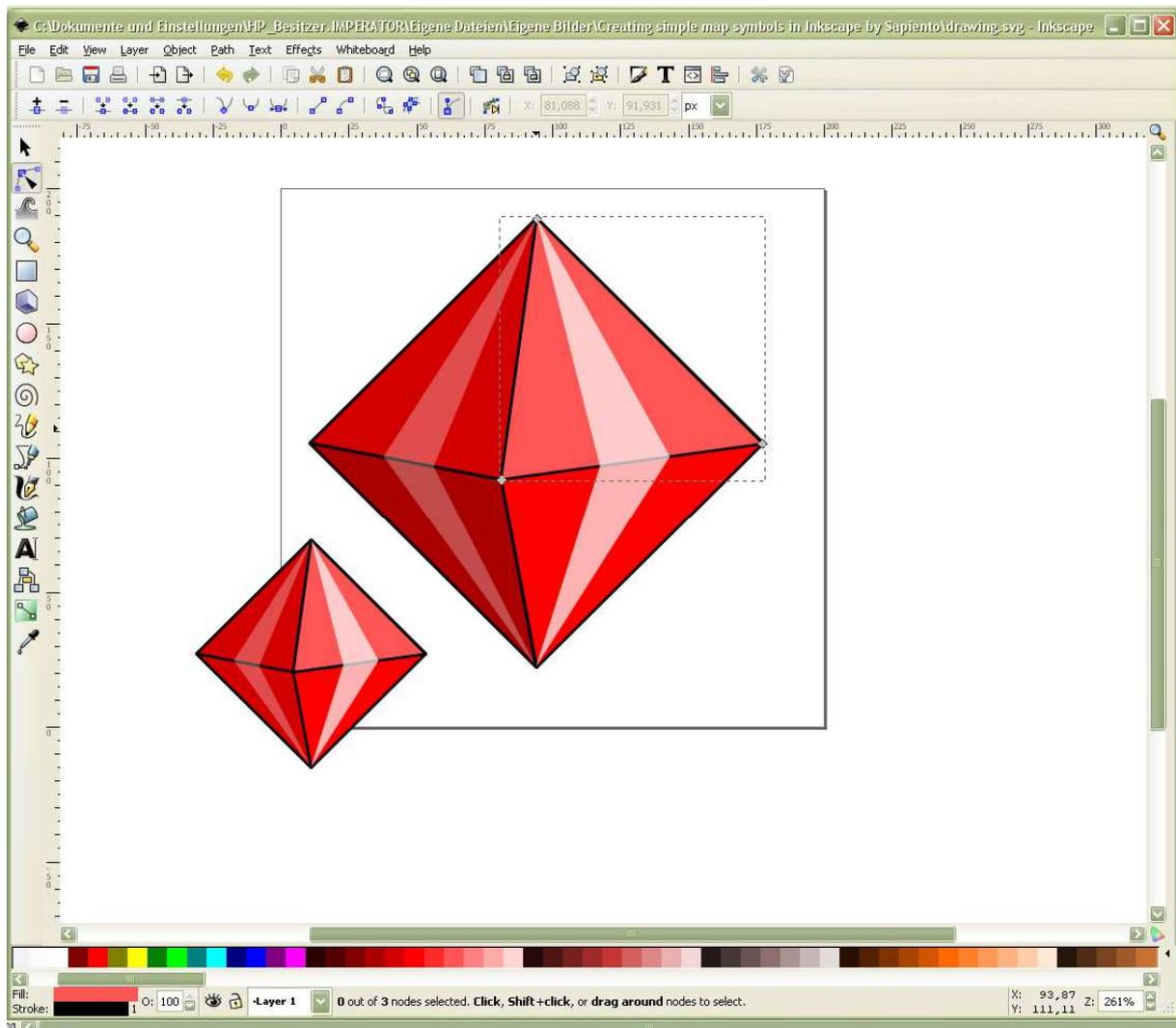
You note, the strokes of our original jewel are thicker than the new ones. When we decreased the size, the strokes have been decreased, too. Now, it's a matter of taste if you keep the thinner strokes. Or if you want the same stroke size for both objects. If that's the case, select both jewels, right-click > Fill and Stroke > Stroke Style.



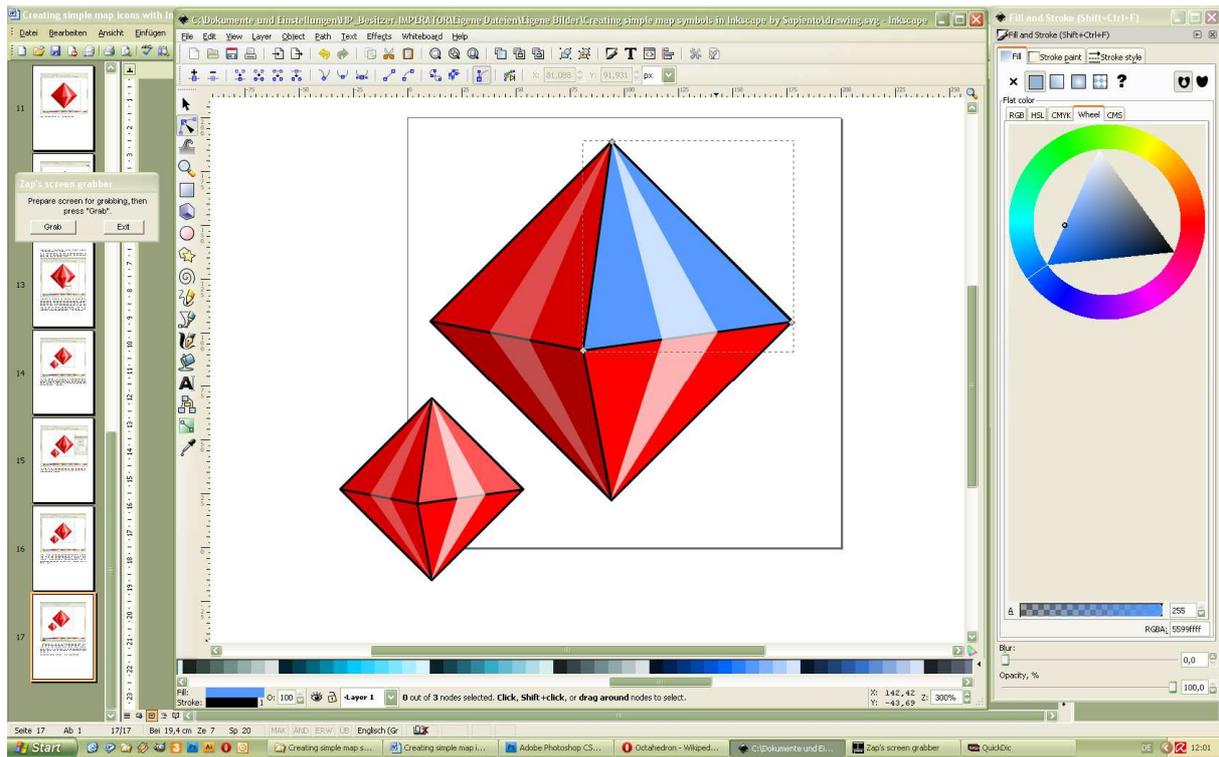
Now select px, and enter at 'Width' a number you like or use the 'up' and 'down' arrow right beside the number field. I type 1 and now both jewels have strokes at the same size.



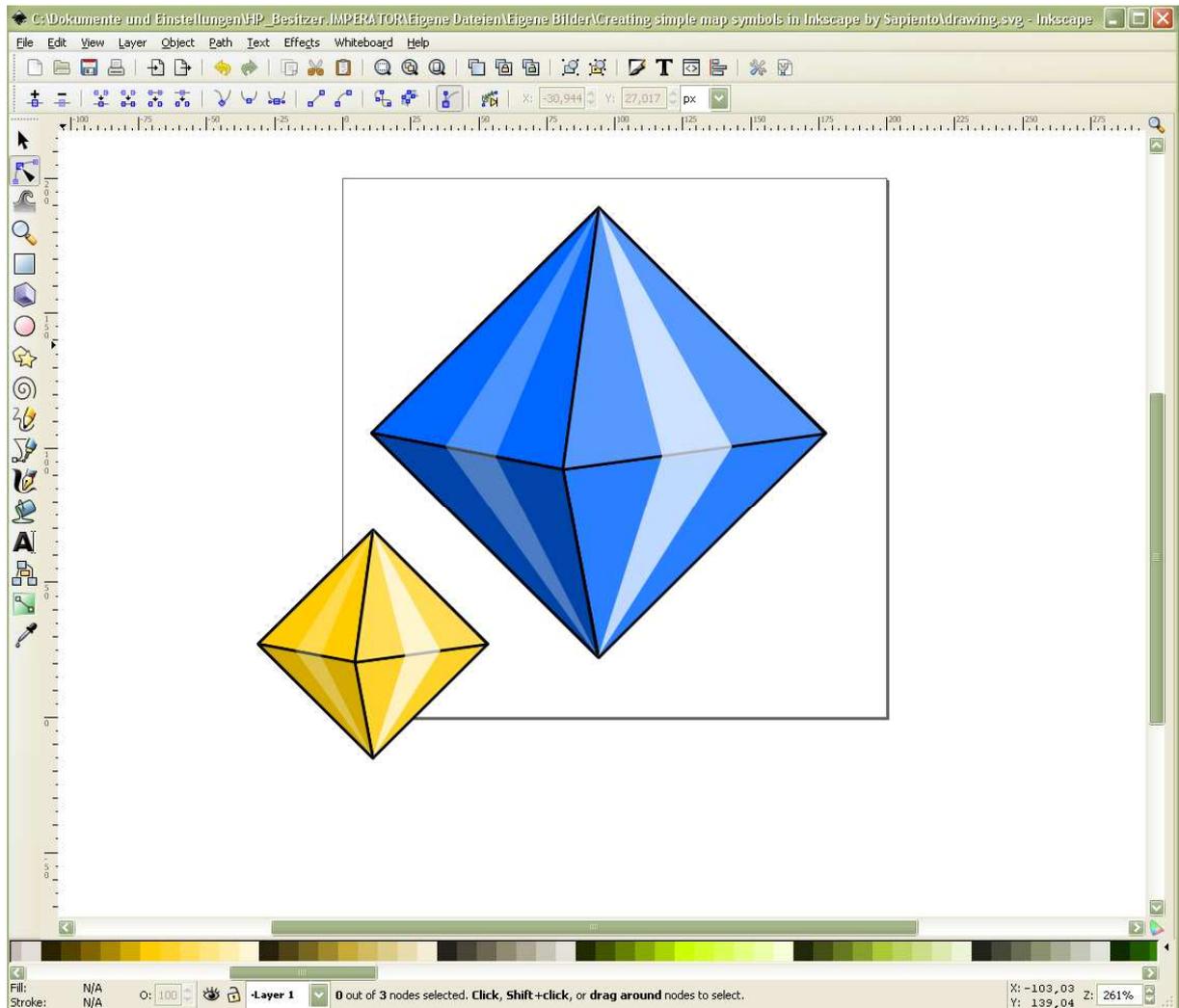
What if you don't like the colour of the jewels anymore? Easy to change. Select the 'Edit paths by nodes' tool (F2). With this tool you can always select a certain shape or line even when it is within a group (It works also with the F1 tool, but you have to double click; the F2 is one-click and more precise to really select the path or shape you like). F2 is easy:



I like the larger jewel in blue and the smaller in yellow. I go to the palette in the bottom and scroll to the right until I have different shades of blue. Then, with the F2 tool I select the shapes, and then I click on the colour I wish to change the appearance of the selected shape. Start with the brightest coloured shape and finish with the darkest.

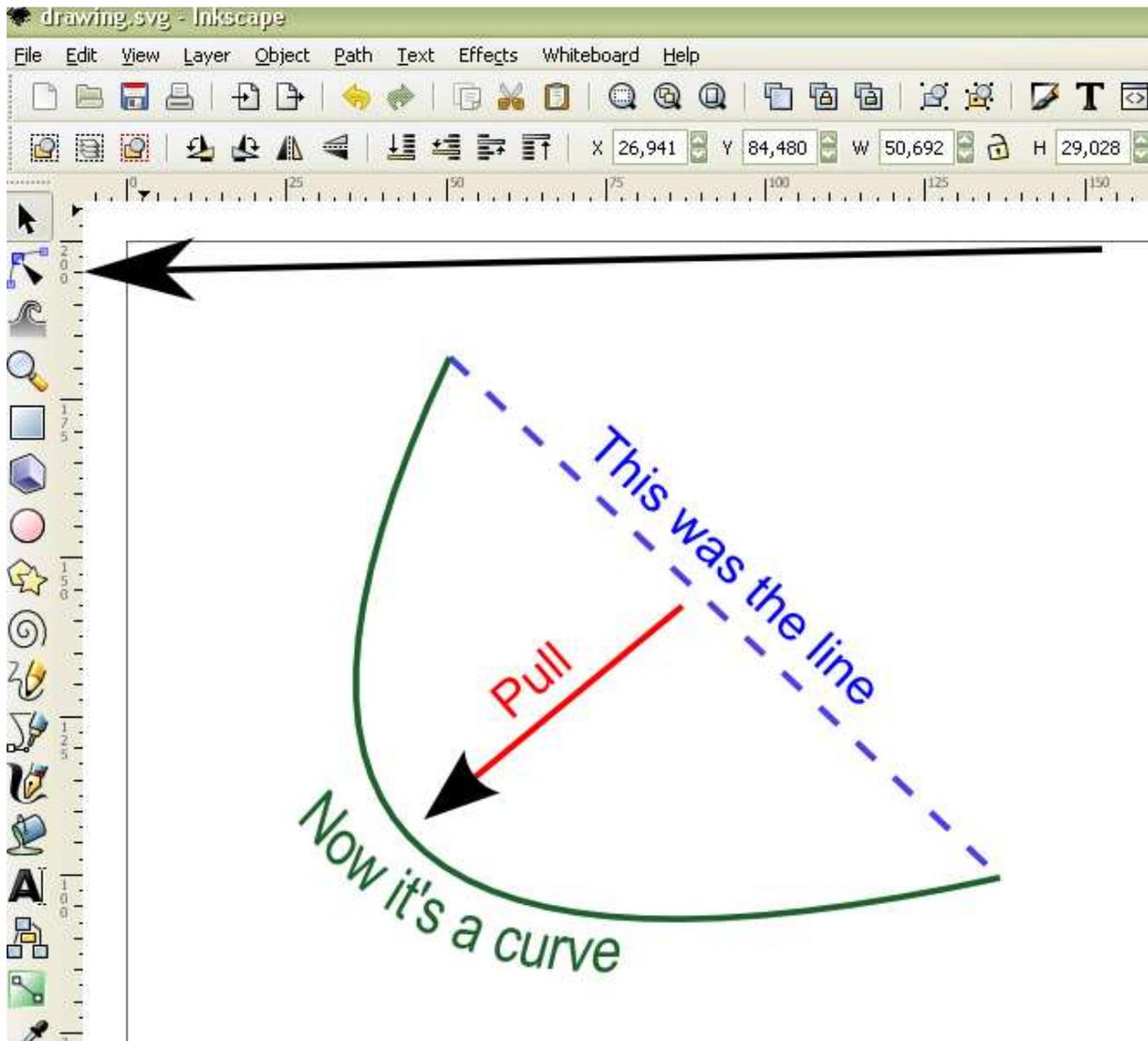


Then do the same for the smaller jewel. That's the result:



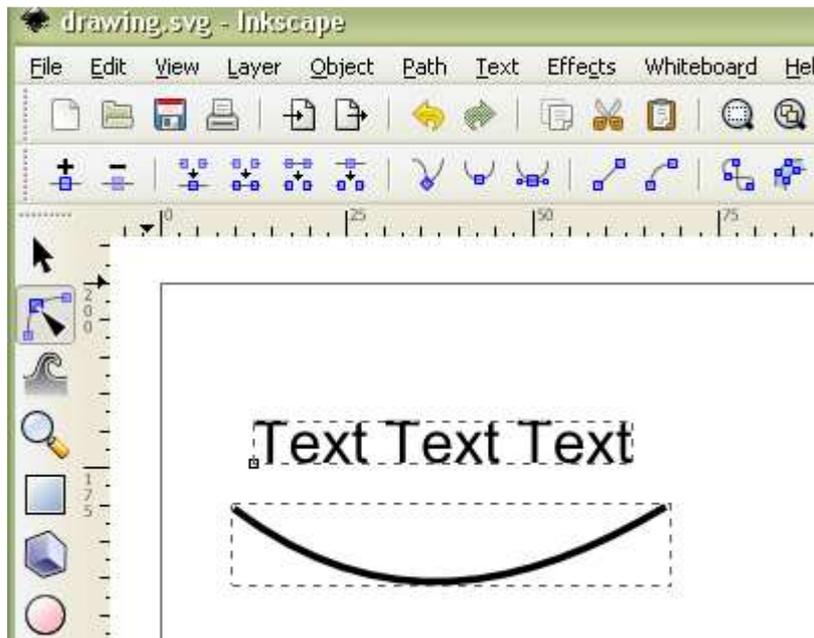
To make a bitmap file of our vector shape go File > Export Bitmap. Here you can choose the options you like and create a .png file out of your vector file.

To make a curve out of a line, select the line with the F2 tool and pull the line



If you ask 'How do I make a curved text?' that's easy.

Type text (text tool F8), create a curve (see above) select both (either with the F1 drawing a selection on both or clicking on each while holding Shift)



Then go Text > Put on Path. Voila.



To get rid of the black stroke: select the stroke with F2 tool and in the bottom left Stroke > right-click > Remove stroke.



That's how you create and change symbols. It's all about shapes and lines. If you dig this, you make a great step into the world of vectors and paths.