

Inkscape #2 Project Make

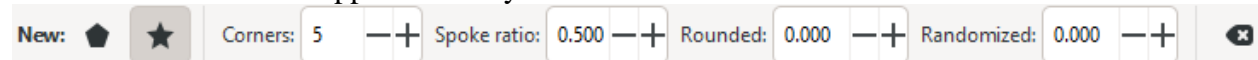
Today we'll learn the following new skills and concepts:

- How to draw a star
- How to draw a triangle
- The difference between a path and a shape
- Nodes
- Path>Union, Path>Difference
- Make a cloud, moon, star scene

1. Triangle

First, let's draw a star. Choose this tool: 

Look at the toolbar that appears when you select this tool:



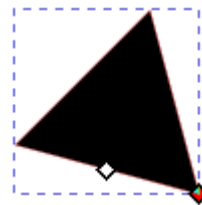
This tool draws stars and polygons (shapes made with straight lines).

The little x icon on the far right resets the settings to the defaults which you see here above.

Draw a five pointed star.



Change the "corners" setting to 3, draw a triangle.



At this point you should have a star and a triangle on your canvas. I recommend saving your file with your name and "Inkscape 2" in the title right now.

Go back to the select tool (the top arrow in the toolbar). Select the star and duplicate it. Move the copy below.

Double-click on it. Notice that Inkscape changes over to the star/polygon tool automatically. If you need to you can change the settings up on the toolbar again (the number of points, etc.)

Change the number of points for this duplicate star to 8.

Go back to the select tool. You should now have the following in your document:

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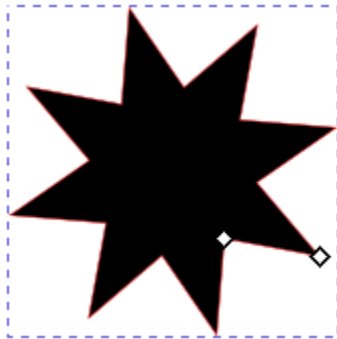


2. Paths vs. Objects/Shapes

Duplicate the 8 pointed star and move the copy to the right.

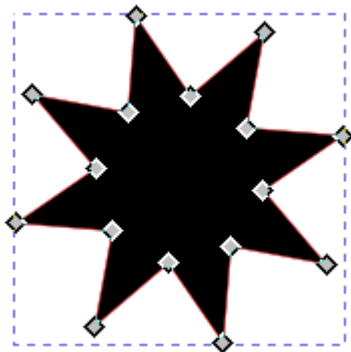
With it selected, choose "Object to Path" in the Path menu. It might seem like nothing happened, but you just turned this star from an object or shape into a path, a series of mathematical formulas that describe what it looks like.

What difference does it make? Well, double click on the original 8 pointed star and you are put back to the star tool. Try this.

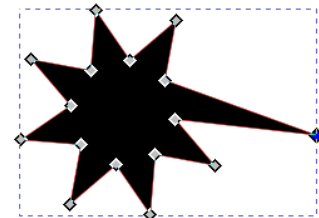


If you drag either of those little squares your shape remains a star but the attributes change.

Go back to the select tool. Now double click on the star you turned into a path. You get the following:



All those little squares are called "nodes". If you drag one of these now, it only moves the one you are dragging. This star is described by these 16 nodes. Drag one of the nodes to make this not a perfect star anymore.

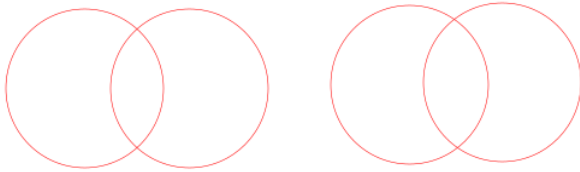


When something is a shape or object (for example a star, or a rectangle or an oval or a piece of text) you can double click on it and access that shape's controls (number of points, edit the text, etc.). Once you turn it into a path, it becomes a bunch of nodes. You can then only change it by moving or deleting nodes. We'll deal with this more in future assignments.

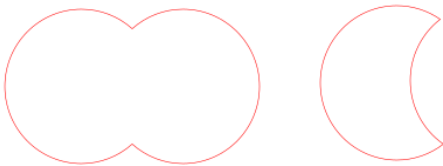
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4. Path>Union, Path>Difference

Draw a perfect circle. Duplicate it four times. Overlap the circles as shown here. Open The Object Fill and Stroke menu, turn off fill, and turn on the Stroke if necessary. You should have something like this:

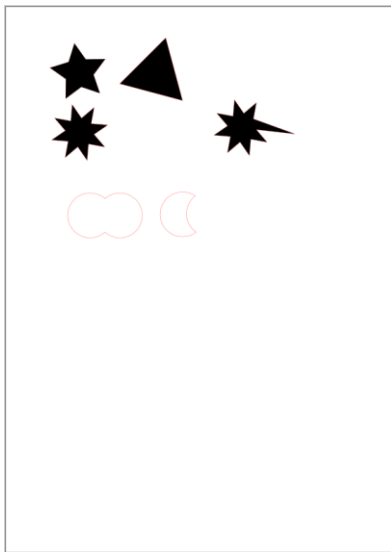


Select the two on the left. Choose Union under the Path menu. Select the two on the right, then Choose Difference from then Path menu. You should have something like this:



Union takes two shapes or paths and combines them creating a single path.
Difference takes two shapes and subtracts one from the other.

Your project should look like this now. Be sure to save it.



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5. Make a cloud, moon and star scene

Using your new skills, make a scene that looks like this:



To make the clouds, use five or more circles, select a cloud's worth, and do Path>Union. To make the moon use two circles and use Path>Difference. Please make the stars 5 pointed, and add five of them.

For all of the objects, please turn off fill and turn on the stroke to red and a stroke width of .1 mm.

Write your name under the clouds using the text tool. Resize your name so it's nice and big.

Make everything fit on a single page in Inkscape. Your final result should look something like this image to the right.

Turn in on the Google Classroom when you are done.

