

## Scalable Vector Graphics (SVG) Basics

1. Copy text from <http://steamcoded.org/svg600.txt>  
Hold down "Command" key and hit the "A" key – to "Select All"  
Hold down "Command" key and hit the "C" key – to "Copy" selected (highlighted) text
2. Open your text editor and paste the text into it  
Hold down "Command" key and hit the "V" key – to "Paste" copied text
3. Save the file as basics.svg  
From the editor menu, select "File", then select "Save As"  
Type the name of the file – "basics.svg" and select where it will be saved
4. Find the file on your computer and drag it to the browser window to open it.  
Keep both the text editor and browser windows open.

In next steps, type the code into the text editor on the line before the ending `</svg>` tag.  
To add blank lines, position the cursor at the end of your line of code and hit the "return" key.  
When done typing, select "File", then "Save". Once saved, refresh the browser to see the shape.

5. Draw a rectangle that starts at (0,0) and is 600 pixels wide and 600 pixels high  
`<rect x="0" y="0" width="600" height="600" style="fill:red;" />`
6. Draw a circle that is centered at (300,300) with a radius of 300  
`<circle cx="300" cy="300" r="300" style="fill:white;" />`
7. Draw an ellipse that is centered at (300,300) with x-radius of 300 and y-radius of 100  
`<ellipse cx="300" cy="300" rx="300" ry="100" style="fill:blue;" />`
8. Copy the ellipse from step 4 and paste on the next line.  
Change the x-radius, y-radius, and style attributes as shown below.  
`<ellipse cx="300" cy="300" rx="100" ry="300" style="fill:navy;opacity:0.8;" />`
9. Add some text starting at (15,30)  
`<text x="15" y="30" style="font-family:Arial;font-size:20px;fill:yellow;">Basic Shapes</text>`
10. Create a group element with a style attribute – Don't forget the ending `</g>`  
`<g style="fill:none;stroke:magenta;stroke-width:4px;">`  
  
`</g>`
11. Draw a horizontal line using the path element as a child of the group element  
set the d attribute to Move to (0,300) and a Line to (600,300)  
`<path d="M0,300L600,300" style="stroke:lime;" />`
12. Draw a vertical line using the path element as a child of the group element  
set the d attribute to Move to (300,0) and a Line to (300,600)  
`<path d="M300,0L300,600" style="stroke:lime;" />`
13. Draw a curve using the path element as a child of the group element  
set the d attribute to Move to (0,300) and Quadratic curve to (300,300) shaped by point (150,50)  
`<path id="wave" d="M0,300Q150,50,300,300" />`
14. Add to the end of the d attribute of step 10: Q450,550,600,300  
another Quadratic curve to (600,300) shaped by point (450,550)  
`<path id="wave" d="M0,300Q150,50,300,300Q450,550,600,300" />`
15. Reuse the "wave" curve and rotate it 90 degrees about point (300,300)  
`<use xlink:href="#wave" transform="rotate(90,300,300)"/>`
16. Add an image element and display your image at 1/2 it's size  
`<image x="300" y="0" width="300" height="300" xlink:href="basics.svg" style="opacity:0.5;" />`