intro

goals

raster and vector

why vector

vector limitations

what is svg

how are they written

basics I

svg tag

viewbox - think of viewbox like a camera

units, width, height

color - hex or name, or none

stroke vs fill

stroke-fill order is not customizable in a cross-platform way

z order

rect

circle

line

polygon

exercise

basics part II

opacity

stroke width

stroke is always at center of line

stroke line cap line join

stroke dash array and dash offset

fonts and font sizes

always use a program to convert text to filled path for consistency across platforms

alignment

tspan - no auto wrapping

exercise

intermediate

paths

special quirk

syntax - space vs comma

move to, line to, arc to, etc

if no Q/A/L specified, next points are same element as previous element

relative vs absolute

exercise

intermediate part II

groups - fill and stroke properties cascade downward

transform - right to left, around origin by default

transform-origin (unreliable)

exercise

advanced

defs

markers/arrows

gradients

combined opacity

exercise

extras

metadata - title, desc

classes, ids, groups are used as layers in inkscape and others

overflow

preserve aspect ratio

advanced stuff - clips, masks, animations, filters, link to other svgs, embed raster images, embed, fill pattern, html elements, fill rule even odd, aspect ratio, overflow

conclusion

it's a big spec, dont worry if you see something you dont understand

always test your images on multiple devices, browsers, platforms

let's discuss and deconstruct my svgs (manubot logo, hetmech, biobombe)

let's deconstruct your svgs