

Homework 2: First steps with SVG

Before we become best friends with our new buddy D3, we need to learn SVG, **Scalable Vector Graphics**. It's the technology that D3 is (kind of, somewhat, mostly) built on.

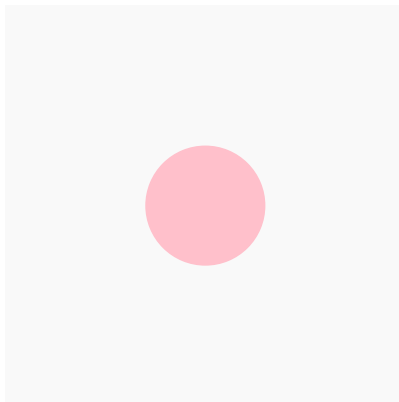
Your finished homework should look like [02-homework-completed.pdf](#).

There are **multiple hints** for each graphic inside of the `hints/` directory. Each problem has an associated text file.

1. A single circle

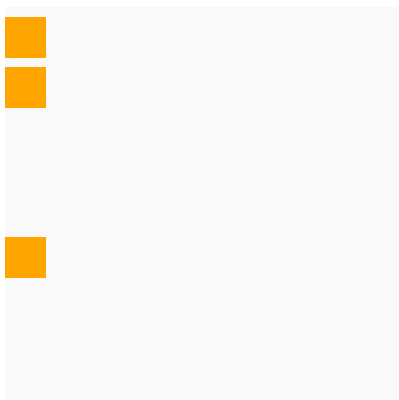
I don't like this circle very much.

Make it have a radius of 30, and make it blue instead of pink.



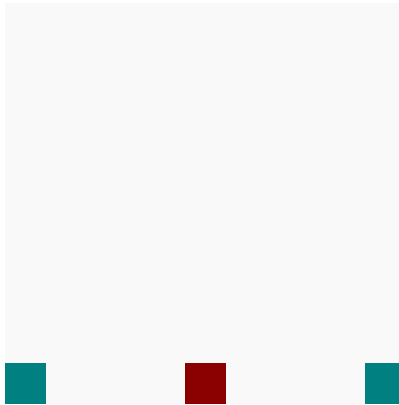
2. A few little squares

I don't like these squares very much, either - they're way too disorganized. Line them up on the **left-hand side of the grey area**, and make them **orange**.



3. A few little rectangles

Line these rectangles up evenly across the bottom of the page - one in the bottom left corner, one in the bottom center, one in the bottom right corner. The red one should be the one in the middle. Do **not** let them go off of the page.



4. A few little circles

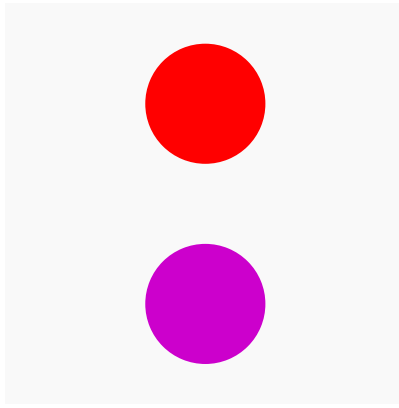
Line these circles up evenly across the bottom of the page - one in the bottom left corner, one in the bottom center, one in the bottom right corner. Do **not** let them go off of the page.

Also, make them the color [#EE599A](#).



5. Broken circles

Below should be a **red circle above a purple circle**. What is wrong with my code? Fix it.



6. Spending time at the bar

I have a few cities.

- The first city has 5 people in it,
- The second city has 23 people in it,
- The third city has 75,
- and the fourth city has 80.

Turn the SVG below into a visualization where you relate the **data attribute** of population to the **visual attribute** of bar length.



7. Spending too much time at the bar

You probably didn't use most of the graph area. Do it again, but use more of the width of the graph area.

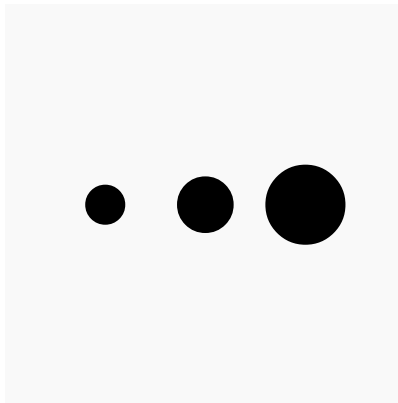


8. Walking around in circles

I have 3 cities: City One, City Two, and City Three.

- City One has **100 people**
- City Two has **200 people**
- City Three has **400 people**

The circle on the left is sized appropriately for City One. **Resize the other two circles for the other two cities.** (If you do it correctly, they won't overlap.)



9. Labels

There are three kinds of pets in the world: cats, dogs and mice.

- **1 person** owns a mouse
- **5 people** own cats
- **10 people** own dogs

Make a standard bar graph out of this, where the data attribute **count of people** is visually represented by **height of the mark**. I want each bar labeled with the animal it stands for, and I want the longest bar to be 140 pixels tall.

Make the cats bar and the cats text a dark red color, because I'm partial to cats. Make the other bars grey to just fade them out a bit, too.

