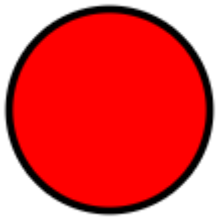
04. SVG Circle & Ellipse.

4.1. Example 1

The <circle> element is used to create a circle:



Example: Here is the SVG code:

```
<svg height="100" width="100">
  <circle cx="50" cy="50" r="40" stroke="black" stroke-width="3"
fill="red" />
</svg>
```

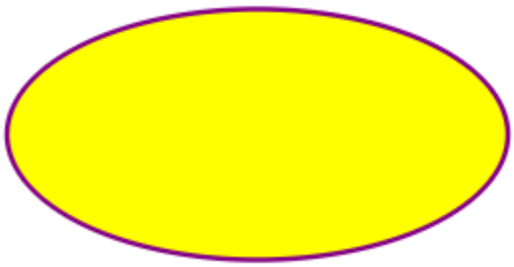
Code explanation:

- The cx and cy attributes define the x and y coordinates of the center of the circle. If cx and cy are omitted, the circle's center is set to (0,0)
- The r attribute defines the radius of the circle

4.2. Example 2

The <ellipse> element is used to create an ellipse.

An ellipse is closely related to a circle. The difference is that an ellipse has an x and a y radius that differs from each other,



Example: Here is the SVG code:

```
<svg height="140" width="500">
  <ellipse cx="200" cy="80" rx="100" ry="50"
  style="fill:yellow;stroke:purple;stroke-width:2" />
</svg>
```

Code explanation:

- The cx attribute defines the x coordinate of the center of the ellipse
- The cy attribute defines the y coordinate of the center of the ellipse
- The rx attribute defines the horizontal radius
- The ry attribute defines the vertical radius

4.3. Example 3

The following example creates three ellipses on top of each other:

Example: Here is the SVG code:

```
<svg height="150" width="500">
  <ellipse cx="240" cy="100" rx="220" ry="30" style="fill:purple" />
  <ellipse cx="220" cy="70" rx="190" ry="20" style="fill:lime" />
  <ellipse cx="210" cy="45" rx="170" ry="15" style="fill:yellow" />
</svg>
```

4.4. Example 4

The following example combines two ellipses (one yellow and one white):

Example: Here is the SVG code:

```
<svg height="100" width="500">
  <ellipse cx="240" cy="50" rx="220" ry="30" style="fill:yellow" />
  <ellipse cx="220" cy="50" rx="190" ry="20" style="fill:white" />
</svg>
```