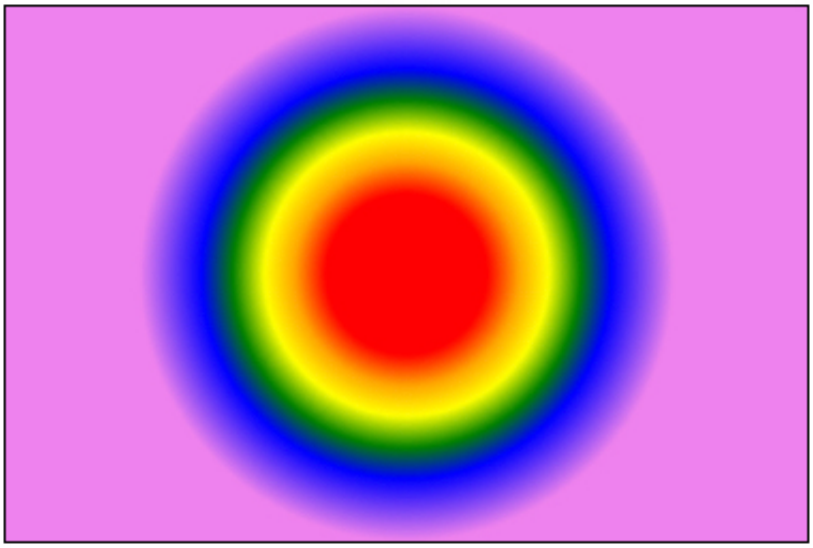
Radial gradients

BASIC PRINCIPLE / SYNTAX: DEFINE TWO CIRCLES AT GRADIENT CREATION

Radial gradients are for creating gradients that propagate/interpolate colors along circles instead of propagating/interpolating along a virtual line, like linear gradients.

Here is an example of a radial gradient that interpolates the color of the rainbow.
Online version: http://jsbin.com/mijoni/2/edit

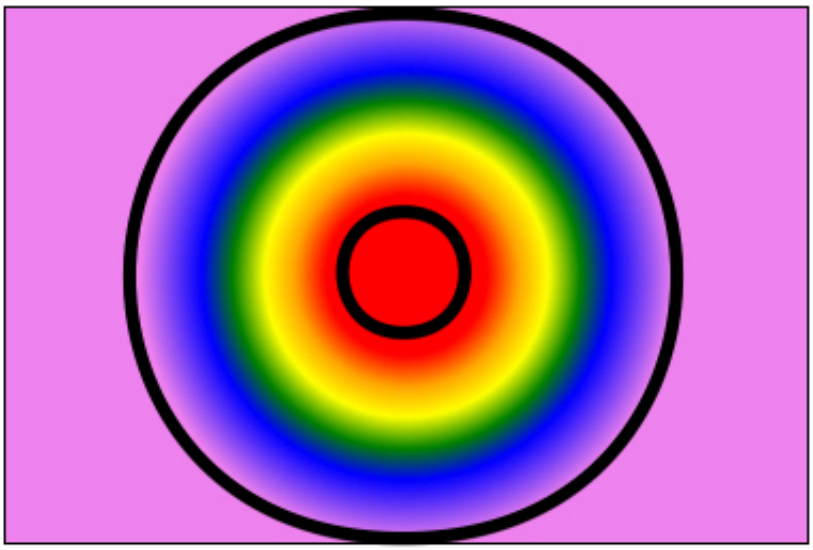


The gradient is defined like that in the example:

```
var grd = context.createRadialGradient(150, 100, 30, 150, 100, 100);
grd.addColorStop(0, "red");
grd.addColorStop(0.17, "orange");
grd.addColorStop(0.33, "yellow");
grd.addColorStop(0.5, "green");
grd.addColorStop(0.666, "blue");
grd.addColorStop(1, "violet");
context.fillStyle = grd;
```

The method from the context object `createRadialGradient(cx1, cy1, radius1, cx2, cy2, radius2)` takes as the first three parameters the "starting" circle of the gradient, and as the three last parameters, the "ending circle".

In the above example, the gradients starts at a circle located at (150, 100), with a radius of 30, and propagates to a circle with the same center as the first one (150, 100), but with a bigger radius of 100. Here, we can see them:



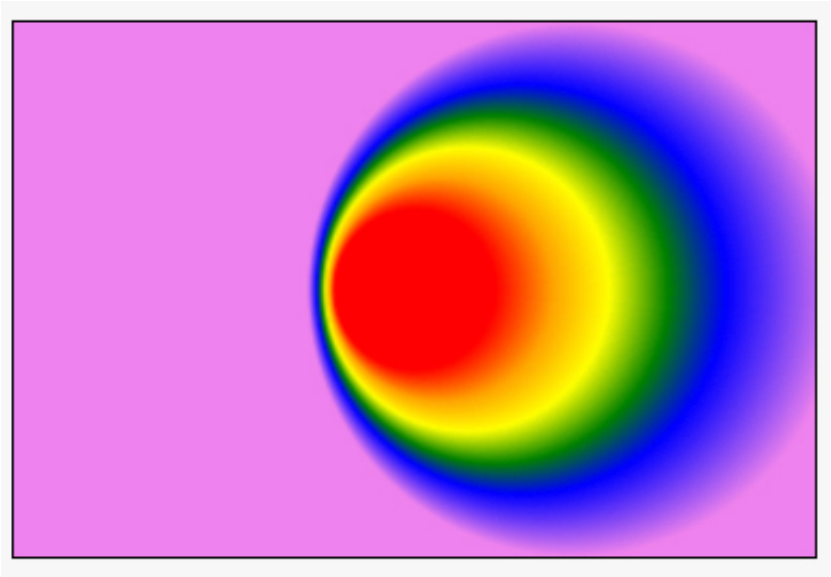
The way we added color stops is similar to what we have see with linear gradients.

WHAT HAPPENS IF THE CIRCLES ARE NOT LOCATED AT THE SAME PLACE?

You obtain some nice effects, here we set the second circle's center 60 pixels to the right of the first circle's center (cx = 210 instead of 150). Online example: http://jsbin.com/fufelef/1/edit?html

```
grd = ctx.createRadialGradient(150, 100, 30, 210, 100, 100);
```

And here is the result:



WHAT HAPPENS IF THE GRADIENT IS SMALLER OR LARGER THAN THE SHAPES WE DRAW?

Like for the linear gradient, if the gradient is smaller, then for the area "before" the first stop color, this color will be used to fill the shape. This is the case of the red color inside the small circle of the gradient in our example: it is filled in red!

For the area outside of the gradient, the last stop color is used, this is the case in our example with the purple color that fills the rest of the filled rectangle area "after the external circle of the gradient.