

lesson 3

LINEARGRADIENT

There is a linear gradient element inside the defs element. Set the starting point of the **vector** using the attributes **x1** and **y1**, where **x1** is 0 and **y1** is 0. Set the end point of the vector using the **x2** and **y2** attributes, where **x2** is 1 and **y2** is 0. Set five stops on the vector. To do this, add five **stop** elements inside the gradient element. For each **stop** element, add an **offset** attribute. For the first stop element, the **offset** attribute is 0%, for the second one the **offset** is equal to 25%, for the third one the **offset**



is equal to 50%, for the fourth one the **offset** is equal to 75%, and for the fifth **stop** element, the **offset** attribute is equal to 100%. For the first **stop** element, the value of the **stop-color** attribute is "#FF530D", for the second one the **stop-color** is "#FFD300", for the third element the value of **stop-color** is "#FF0000", for the fourth element the value of **stop-color** is "#E80C7A", and for the fifth stop element the value of **stop-color** is "#FF0DFF". Create a **rect** element with **x** and **y** equal to 100, with a **width** equal to 500, and **height** equal to 200. Fill the rectangle with a gradient. To do this, add the **id** equal to "**firstGradient**" for the linearGradient element. Using the **url()** function, add a reference to the gradient by adding **#linearGradient** inside the **url()** function.

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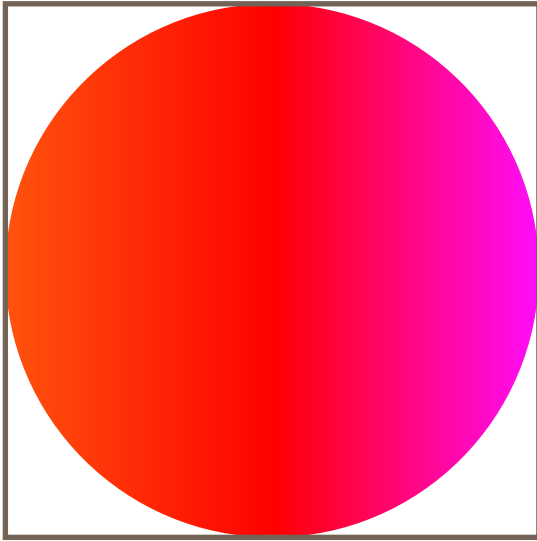
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Rewrite the attributes values **x1,y1, x2** and **y2** of the vector turning its into percentage values. Consider 0 as 0% and 1 as 100%.

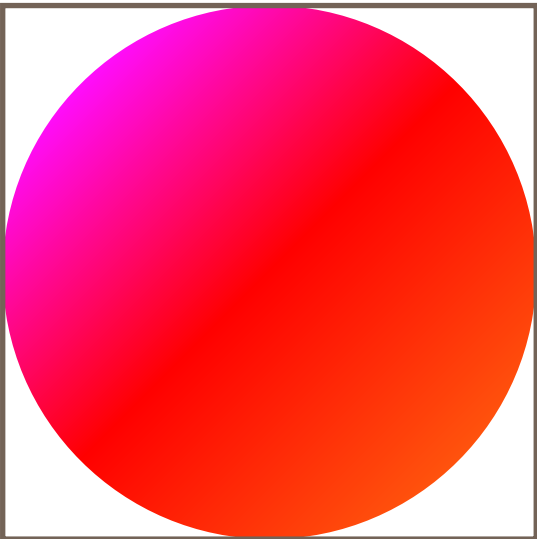
Rewrite the **offset** values of the stop elements by turning the values from % to floats in the range from 0 to 1.

Use a gradient as the **stroke** value. The width of the stroke is equal to 10.



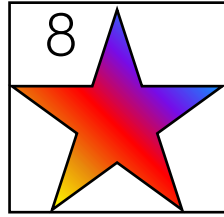
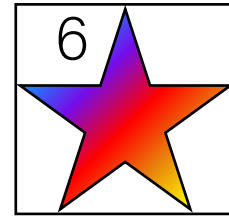
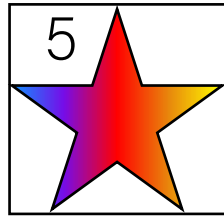
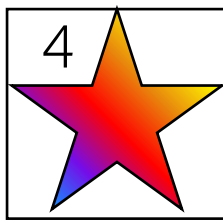
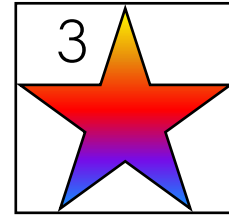
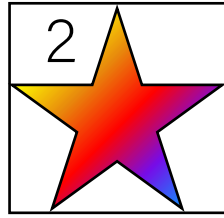
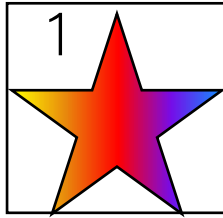


There are two linear gradients inside the **defs** element. The first element of the linear gradient has an **id** equal to **"myGradient"** and contains three stops elements. The second element of the linear gradient does not contain color stops, but the same way as the first gradient element contains vector attributes **x1**, **y1**, **x2**, and **y2**.

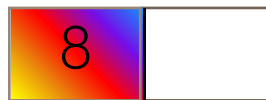
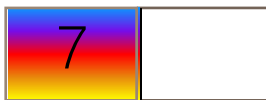
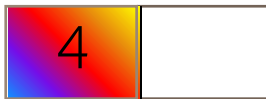
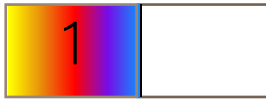


Use the **href** attribute to use the first linear gradient with **id** equal to **"myGradient"** as a template for the linearGradient element with **id** equal to **"secondGradient"**. Apply **"myGradient"** as the value of the **fill** property to the circle with **id** equal to **"left"**. Apply the **"secondGradient"** as the value of the **fill** property to the circle with **id** equal to **"right"**.

Look at the result in the browser. Using a pencil draw a vector for each gradient shown in the picture, for this use **x1**, **y1** as the coordinates of the starting point of the vector and the coordinates **x2**, **y2** for the endpoint of the vector. As you may have noticed, the circles in the browser and the circles in the pictures are the same.



Map the gradient to the vector.

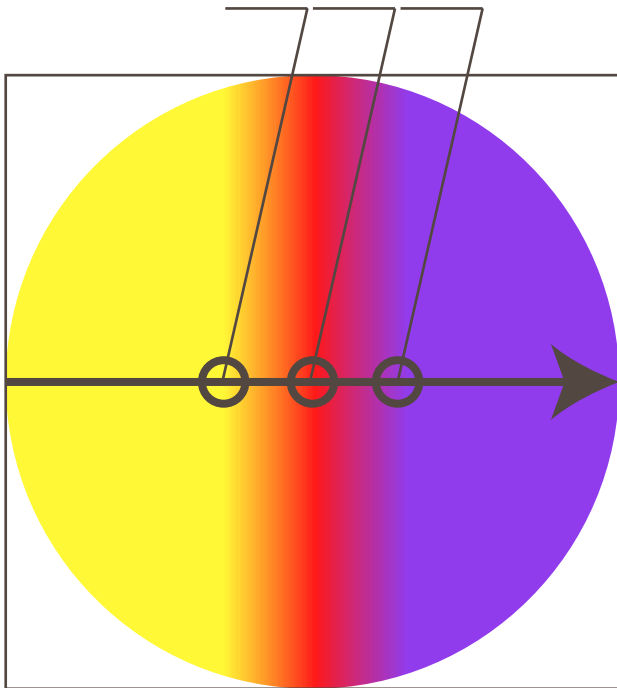


Create the eight gradients using the **firstGradient** as a template. Reassign the vectors for each gradient using the vector attributes **x1**, **y1**, **x2**, and **y2**. Vectors should be arranged in the same way as it is been shown in the picture.

Create a circle with a **radius** of 50 pixels, where **cx** equal to 100 pixels and **cy** equal to 100 pixels inside the **defs** element, Using the **use** elements, create nine circles arranged in three rows. Each circle is 50 pixels away from any other circle. Apply the **firstGradient** to the first circle, the **sec-on dGradient** to the second circle....

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Inside the defs element, create two elements of linearGradient with the following coordinates of the vector:

x1= " 0"

y2= " 0.5"

x2= " 1"

y2= " 0.5"

The first linearGradient element has a "firstGradient" identifier. The second linearGradient element has an identifier equal to "secondGradient".

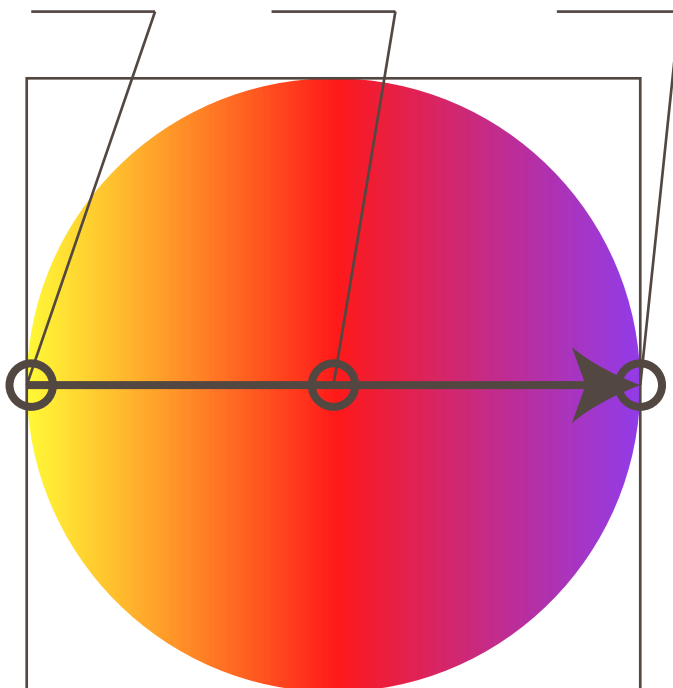
The first linear gradient has three color stops.

The first **stop** has an **offset** attribute that is equal to 35%. The color of this stop is equal to #FFF704 and the opacity of this stop is equal to "0.8»

The second stop has an offset attribute that is equal to 50%. The color of the stop is equal to #FF0000. The opacity is equal to "0.9»

The third stop has an offset attribute that is equal to 65%. The color for the stop is equal to #760CE8. Opacity is equal to "0.8".

The second gradient also has three stops, which have offsets equal to 0%, 50%, and 100%. The stop-color and stop-opacity values are the same as in the "firstGradient".



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Analyze the result and find a correlation between the result and the image you see.

Place the stops on the vector by using a pencil. Sign the offset values on top of the stop.

1) What color have the normals that positioned to the left of the first stop?

2) What color have the normals that positioned to the right of the last stop?

1	
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2	
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The module code contains errors. Correct the errors to get the following result.

