Javascript and Canvas

Dev Environment	**IO**	**Flow control**			
Create/Size/Reset Canvas	**Rectangle Line, Arc LinearGradient**	**Text**			
Basic types	**Function**	**Composite types: Object / Array**	**Events**		
Animation					
OOP part 1	**Audio**				
Interaction	**Collision detection**	**Images**	**Spritesheet**	**Transparent Shadow RadialGradient**	**Video**
Transform	**Projects: Tetris, 2D Breakout etc**			**Composite**	

Why line blurry?
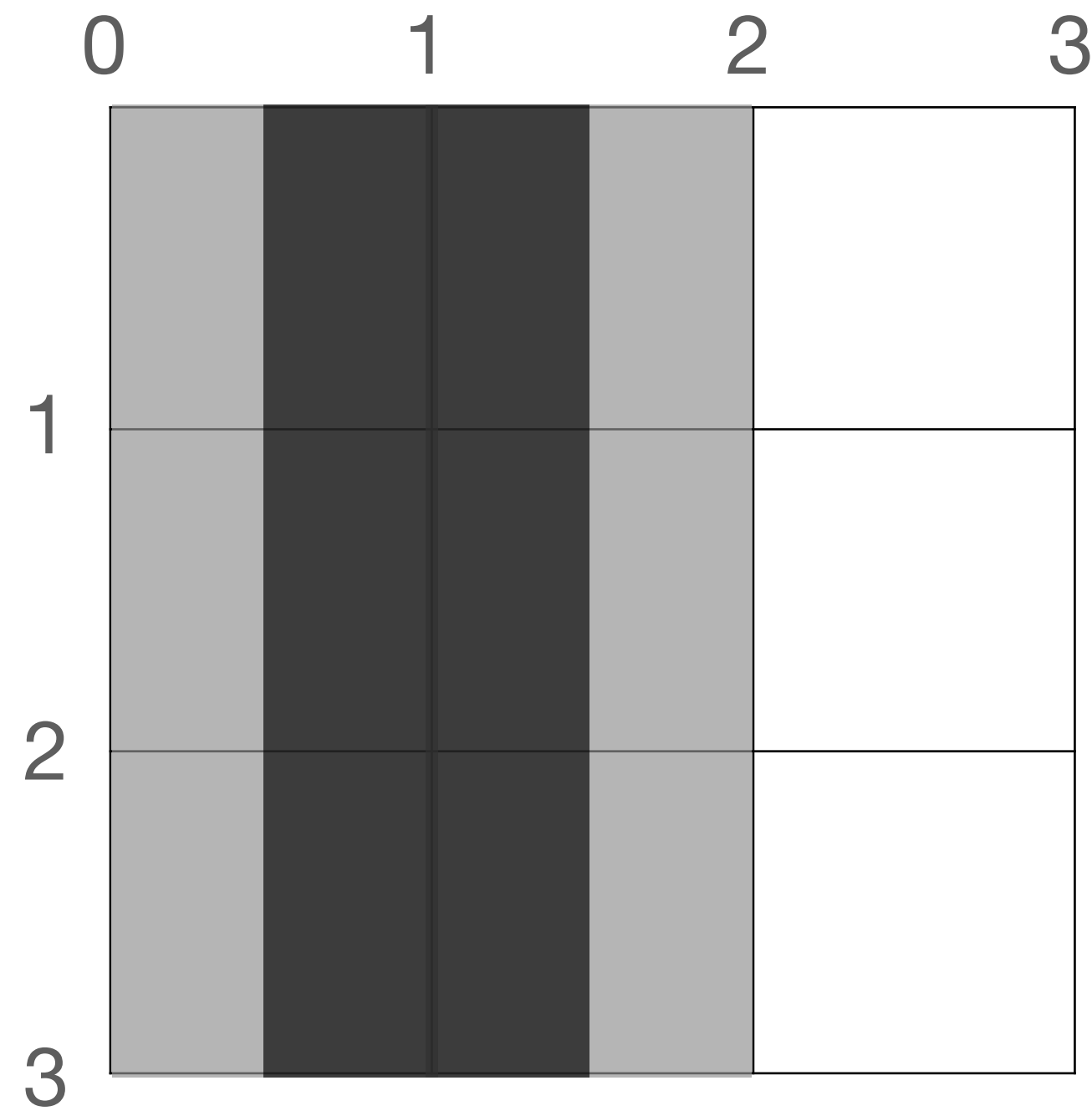
ctx.moveTo(1,0)
ctx.lineTo(1,3)
ctx.lineWidth=1

browser cannot draw half pixel
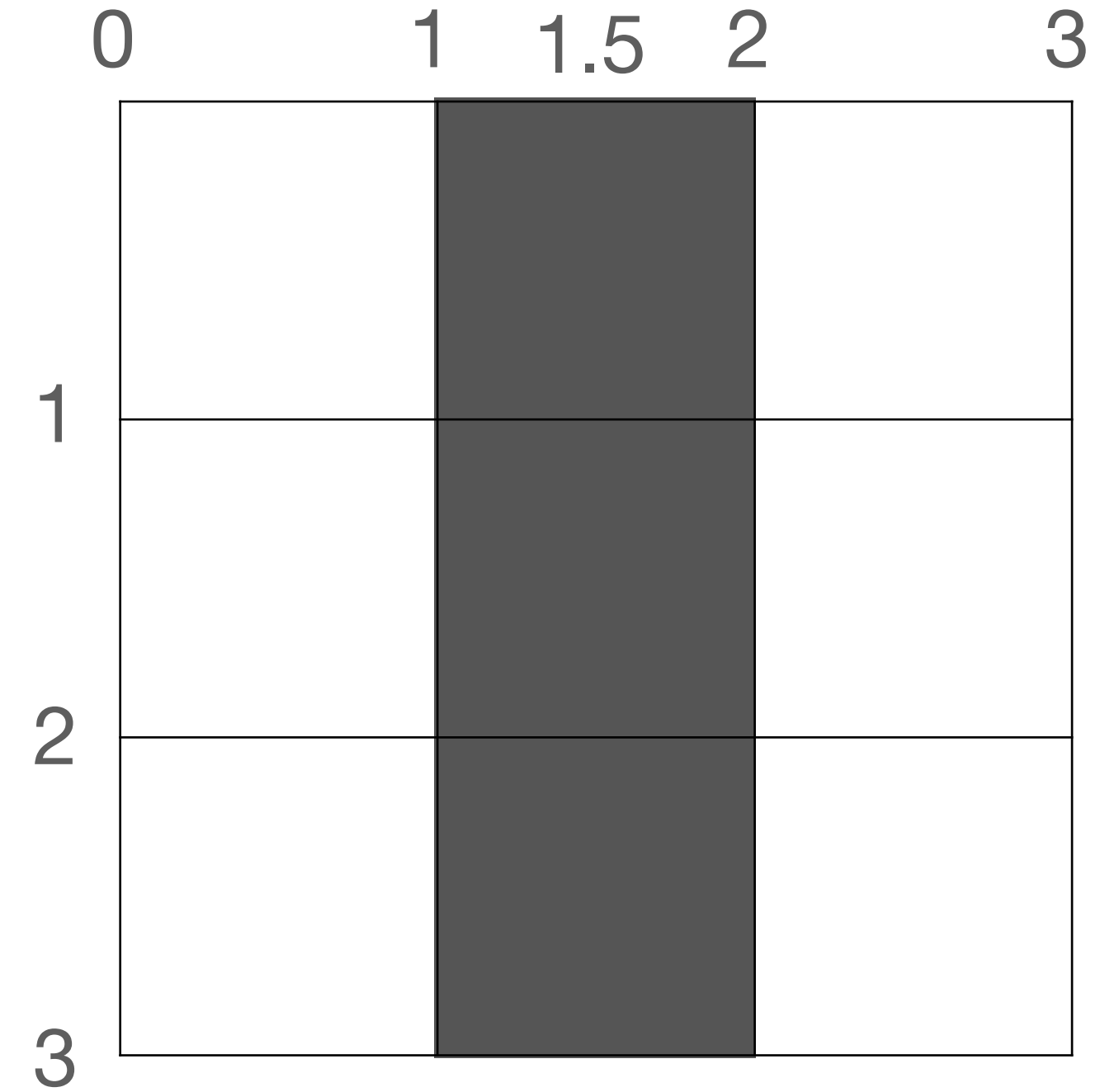
ctx.moveTo(1.5,0)
ctx.lineTo(1.5,3)
ctx.lineWidth=1

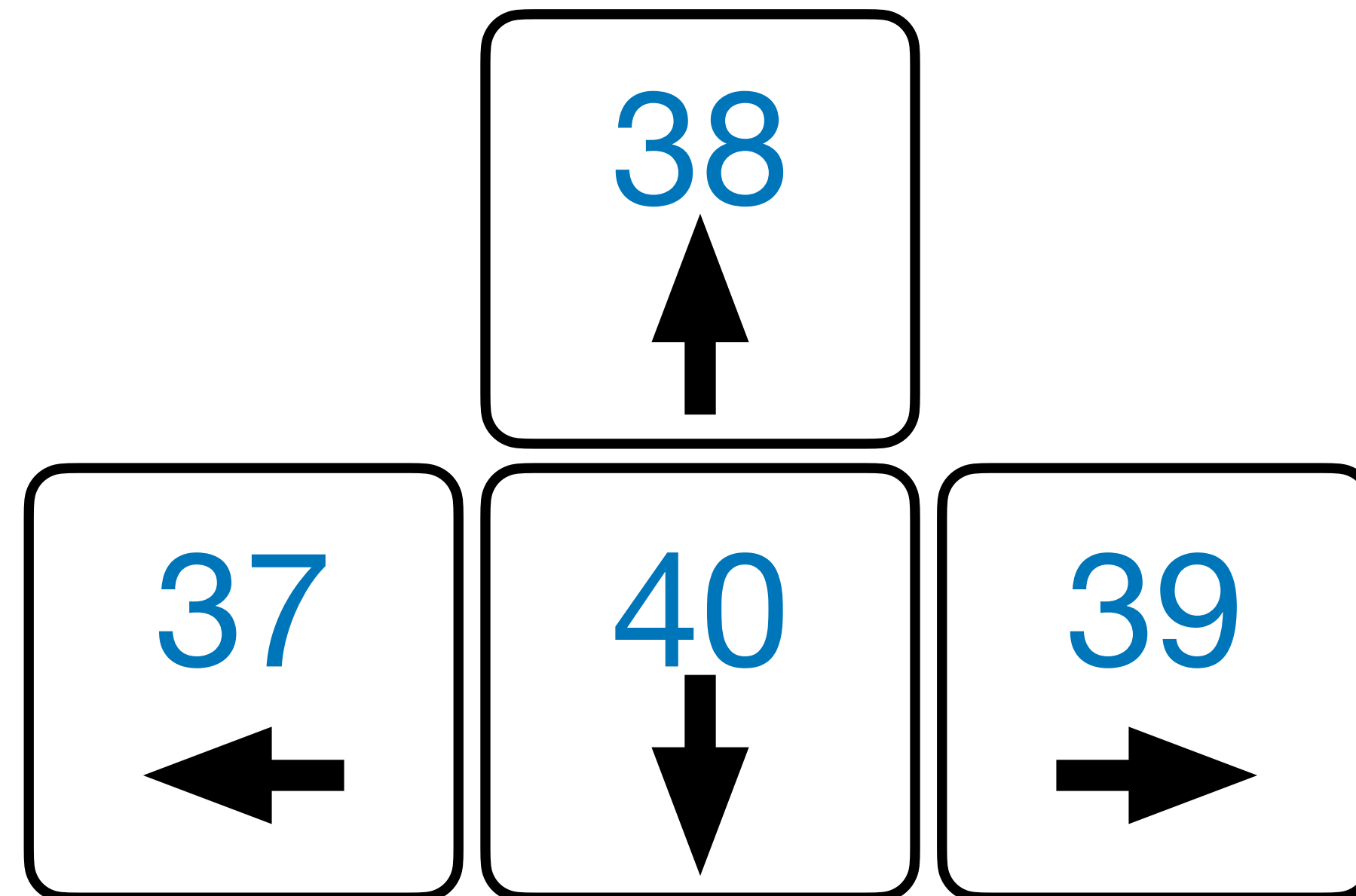browser is able to draw a true 1 pixel

Events

Listen action
then
Generate Event

find
corresponding
registered
event handler
and pass
event object

Click
Dblclick
MouseMove
Wheel
…….

Click handler
Dblclick handler
MouseMove handler
Wheel handler
……

Action

Other sources   Action

Arrow keys
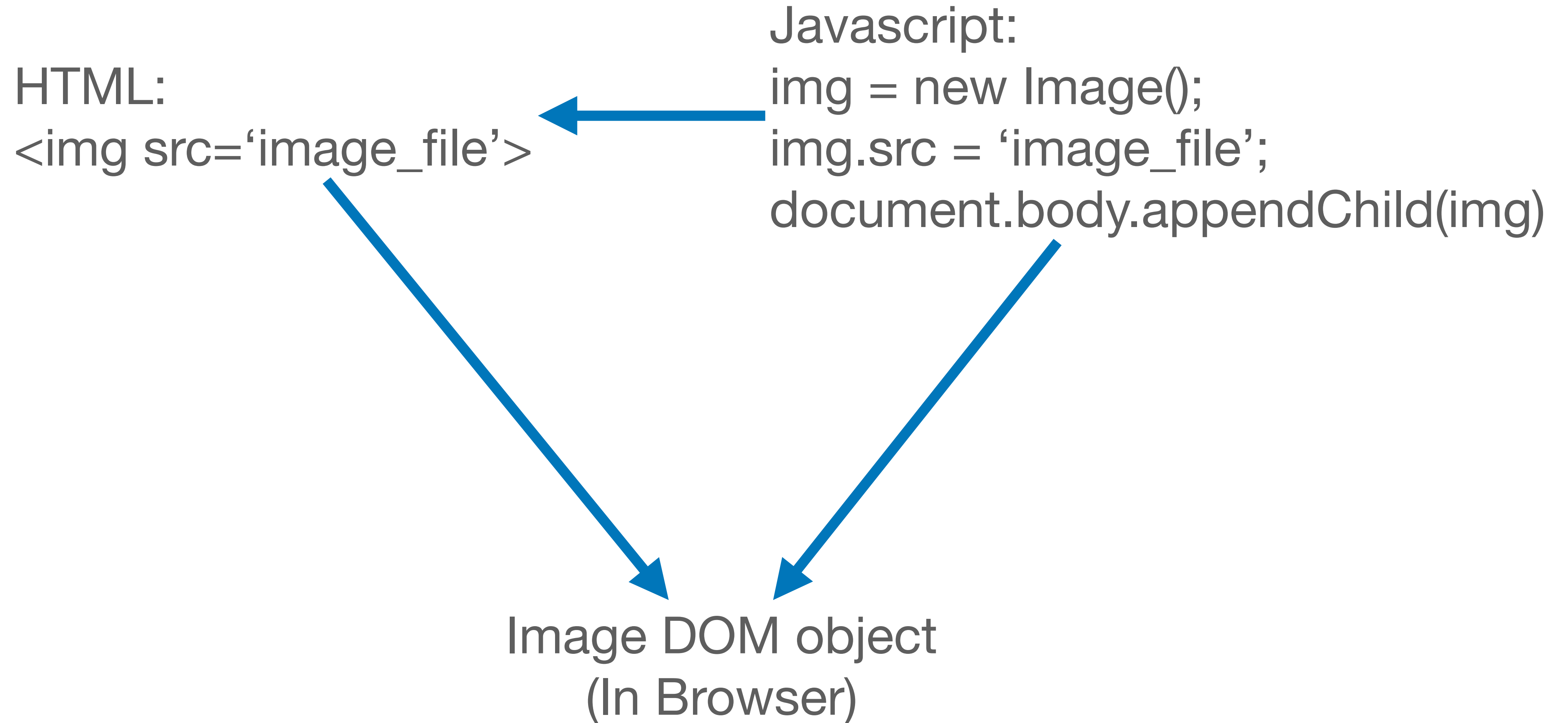
Image DOM (Document Object Model) Object

HTML:
<img src='image_file'>

Javascript:
img = new Image();
img.src = 'image_file';
document.body.appendChild(img)

Image DOM object
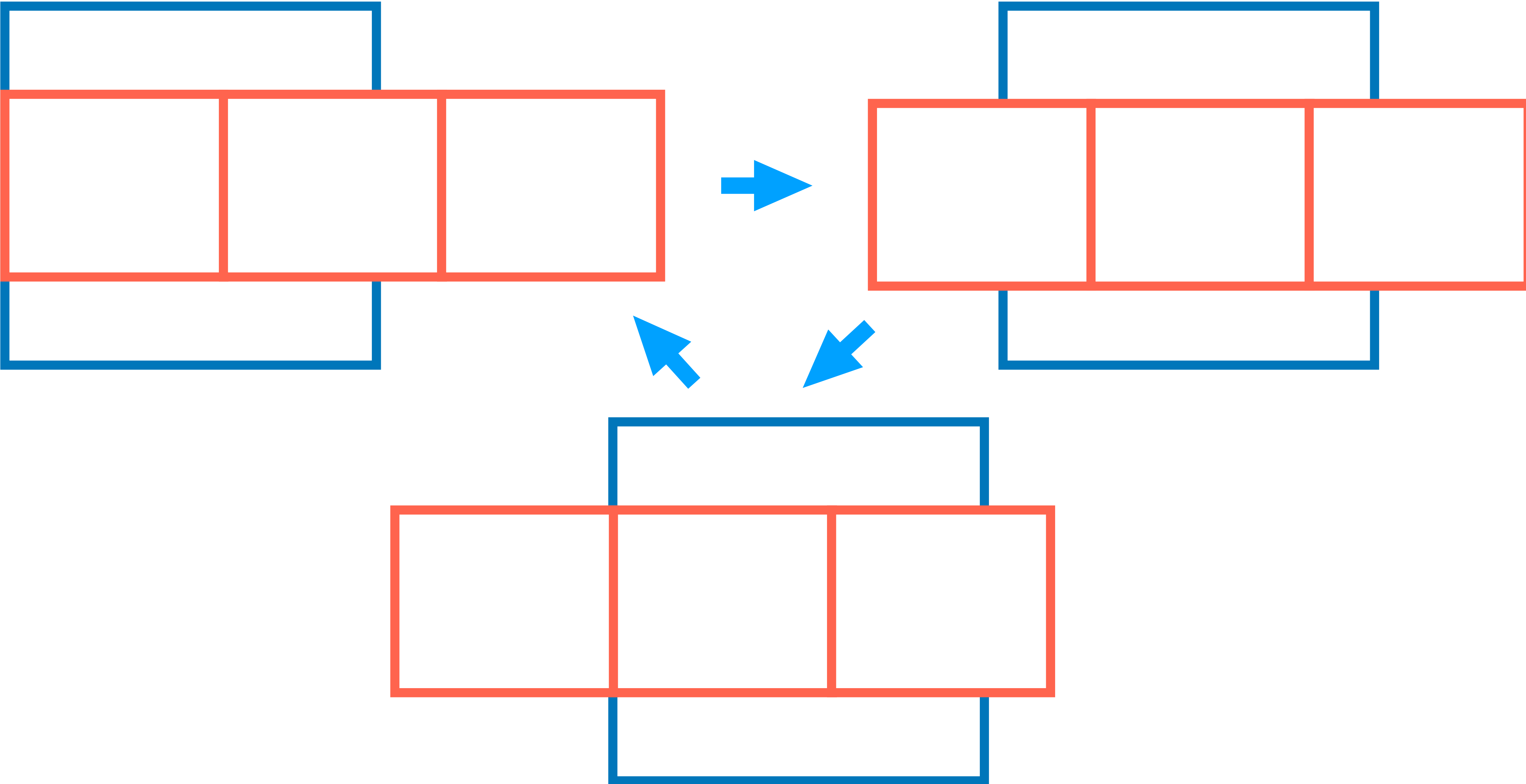(In Browser)

Measure text

actualBoundingBoxLeft (distance between x and the most left edge of the box (negative value)

singer

actualBoundingBox
Ascent

baseline

x,y (textAlign defines x;
textBaseline defines y)

actualBoundingBox
Descent

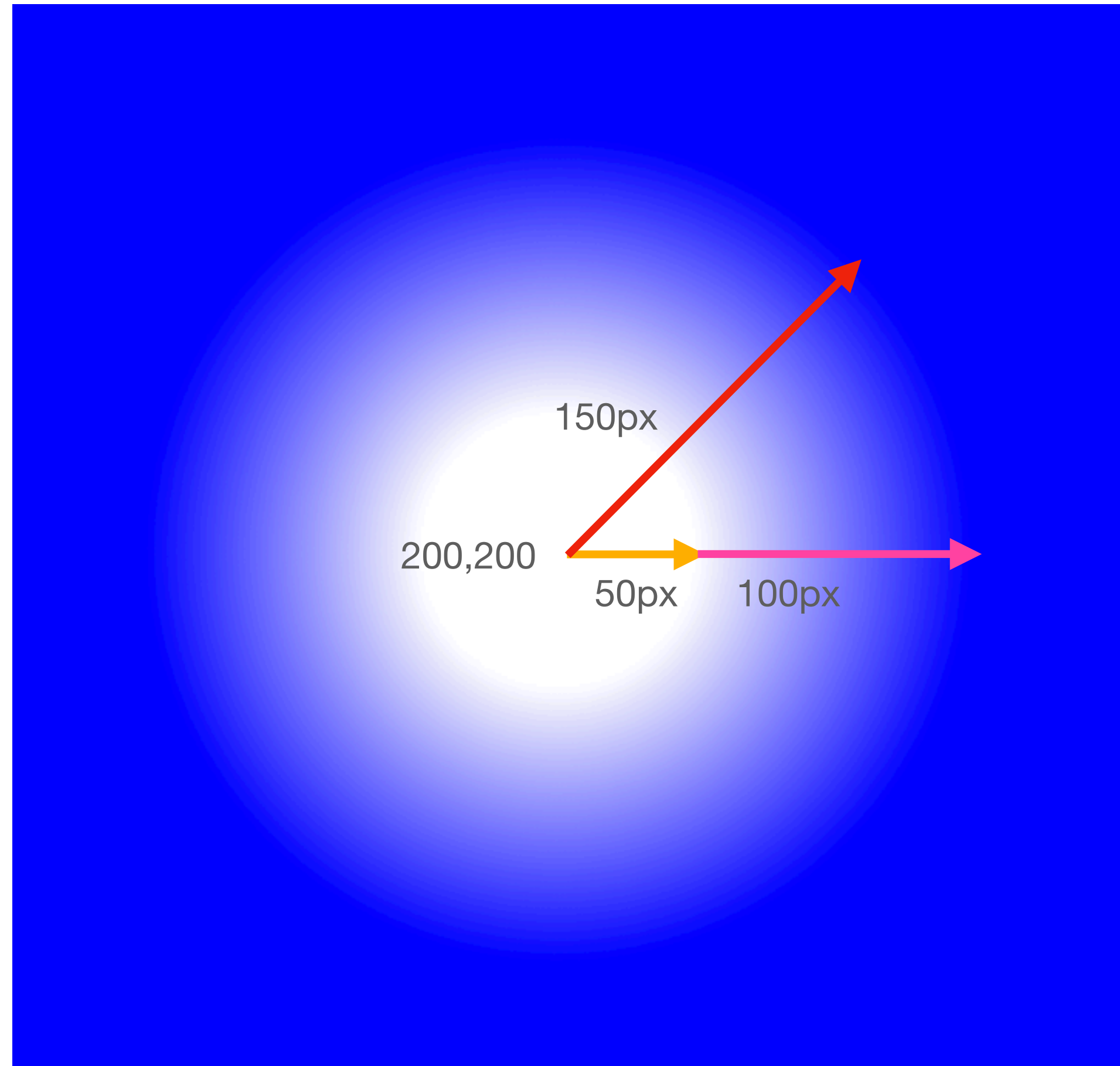actualBoundingBoxRight (distance between x and the most right edge of the box)

Moving background

draw number of images

How radial gradient works?

g = ctx.createRadialGradient(200, 200, 50, 200, 200, 150);
g.addColorStop(0, 'white');
g.addColorStop(1, 'blue');

Transform

scale

skew