

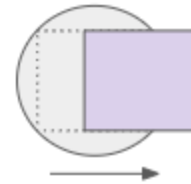
## Predicting Positions

### Discussion:

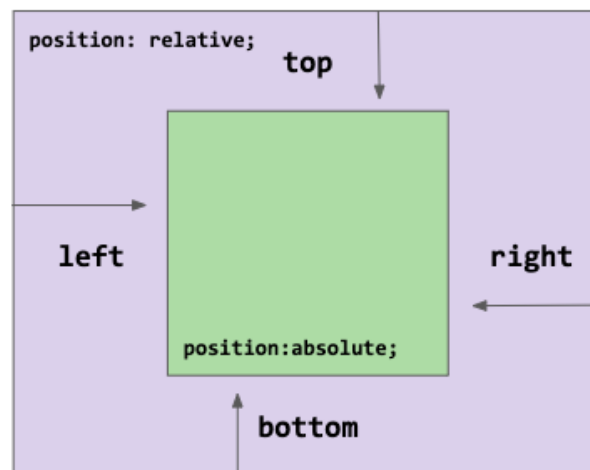
Creating animations in JavaScript relies on the use and change of CSS styles. One important style that enables animation is the **position** attribute. Position determines whether elements can be moved from their initial position on a web page. The position **static** is the default position. This position *restricts* element movement, disabling elements from moving from their original position. The positions **relative** and **absolute**, however, enable elements to move from their initial position. Relative *allows elements to move relative to their initial position*, while absolute *allows elements to move relative to the closest relative or absolutely positioned parent element*.

Once an element is positioned to be relative or absolute, we can move it using the properties **left**, **right**, **top**, **bottom**. These properties move elements **away from** their original position. For example, `left: 5px` moves an element 5px away from the left hand side.

```
#square
{
  position: absolute;
  left: 5px;
}
```

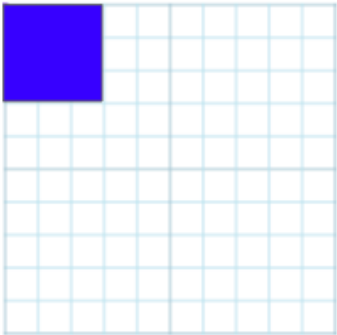

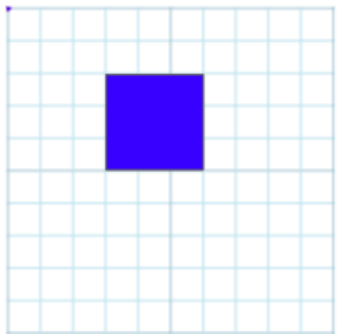

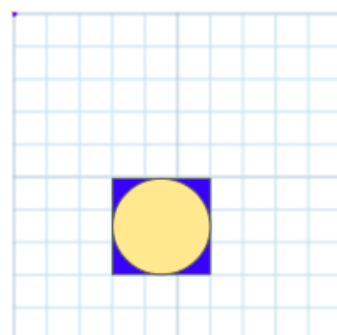

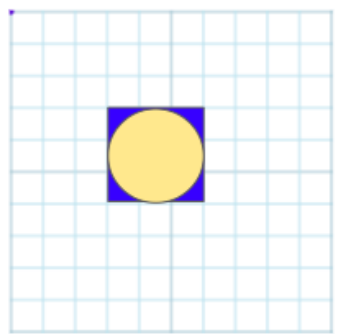


We can think about these properties as opposite movements - Left will move to the right, and top will move an element down:



### Exercise:

Predict where an element will be positioned after the following changes are made to the element's position. Sketch where you think the element will be on the graph. Each square on the graph represents a single pixel.

Original Position	Added Style	New Position
	<pre>#blue-square {   position: relative;   top: 2px; }</pre>	
	<pre>#blue-square {   position: relative;   right: 3px;   left: 2px;   bottom: 1px; }</pre>	
	<pre>#blue-square {   position: relative;   bottom: 3px; } #yellow-circle {   position: absolute;   bottom: 1px;   left: 1px; }</pre>	
	<pre>fill in the style here: #blue-square {   position: relative; } #yellow-circle {   position: absolute; }</pre>	