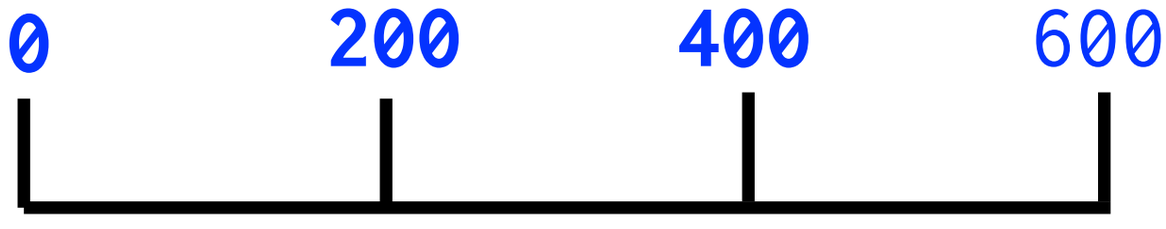
Ordinal Scales

(*IDVW2*, Ch. 9)

Ordinal scales

```
var ordscale = d3.scaleBand()
      .domain(["cold", "warm", "hot"])
      .range([0, 600]);
```

```
> ordscale("cold");
0
> ordscale("warm");
200
> ordscale("hot");
400
```



d3.range( ) .length

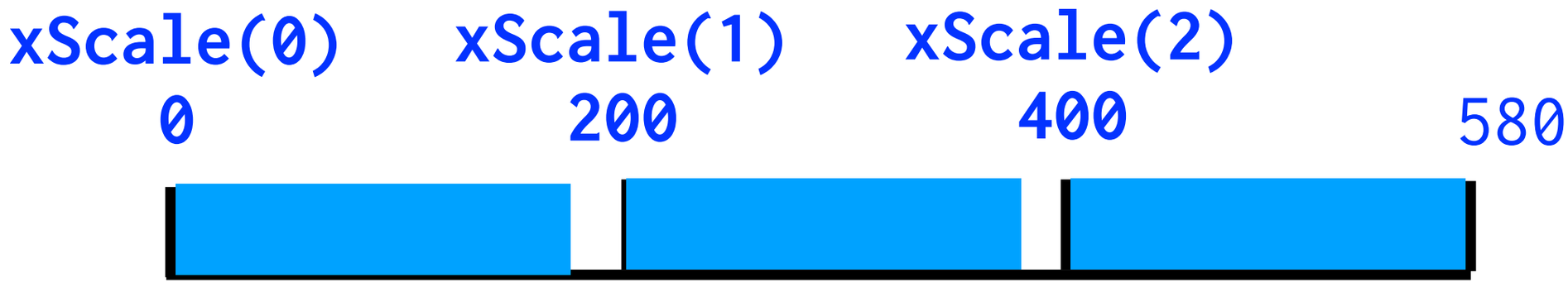
```
var ordscale = d3.scaleBand()
    .domain([0, 1, 2, 3, 4])
    .range([0, 600]);
```

`d3.range(5)` *returns* `[0, 1, 2, 3, 4]`

```
.domain(d3.range(dataset.length))
```

Ordinal scales

```
var xScale = d3.scaleBand()
      .domain(d3.range(dataset.length))
      .range([0, 580])
      .paddingInner([.1]);
```



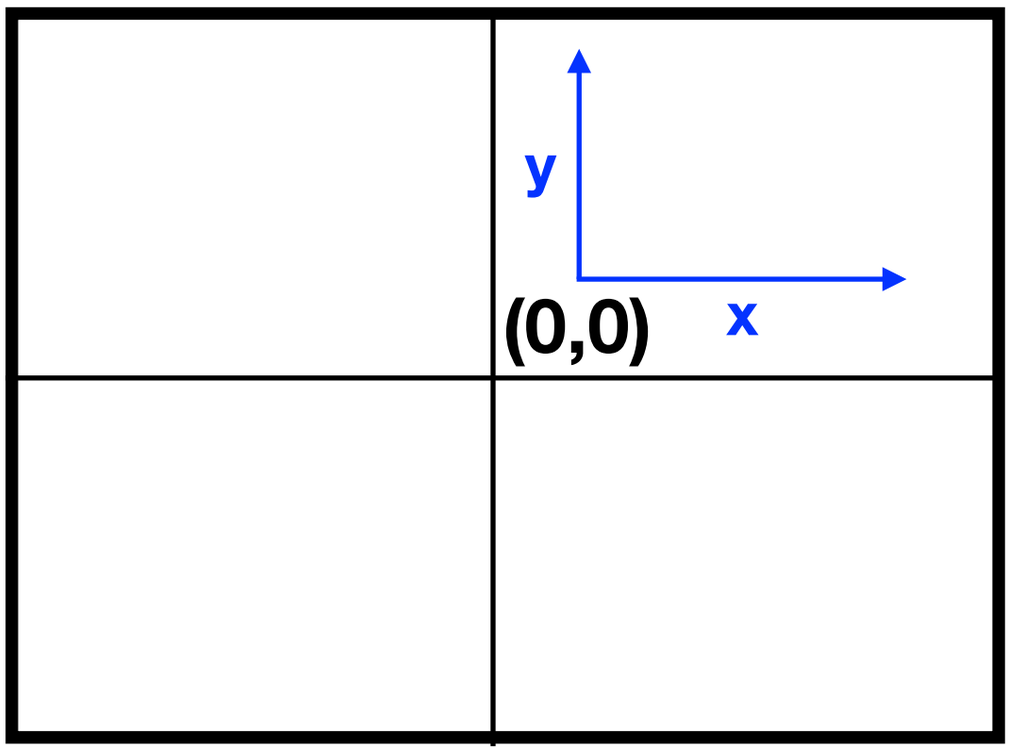

```
> xScale.bandwidth();
  180
```

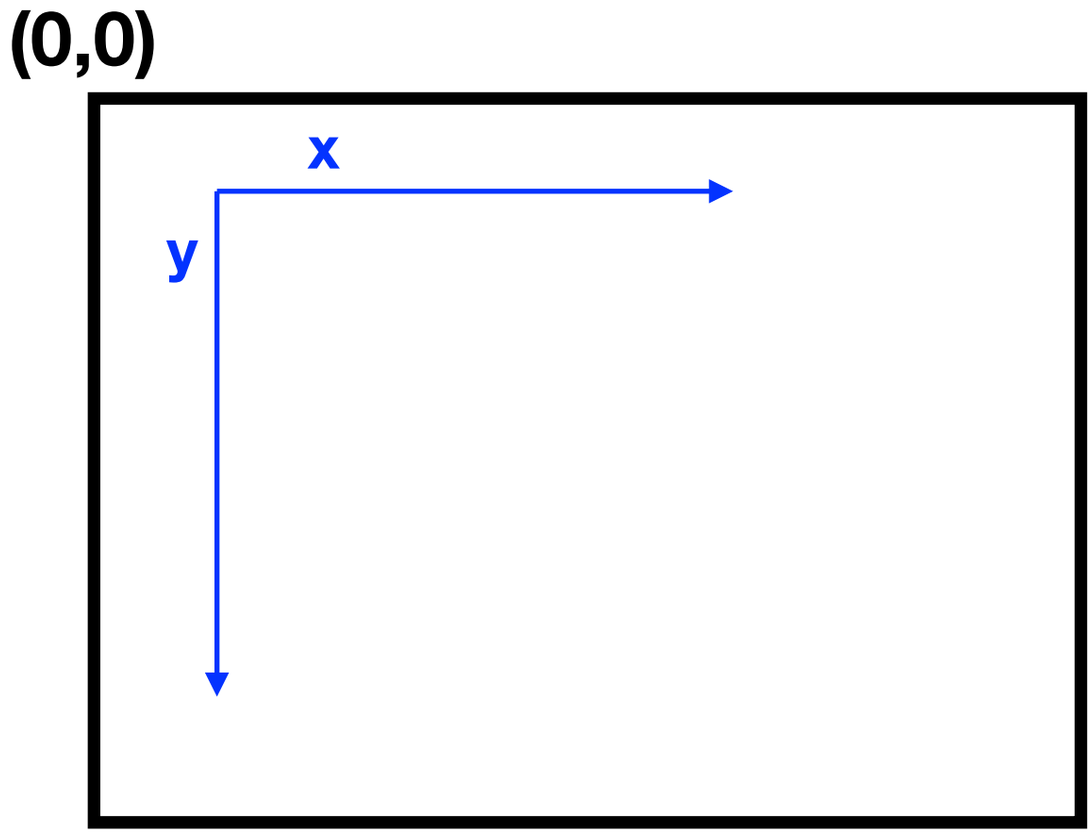
Linear Scales

(*IDVW2*, Ch. 6)

Cartesian Coordinates

SVG





X

Dealing with negative values

```
d3.scaleLinear()
.domain([-100, 100])
.range([0, 500])
```

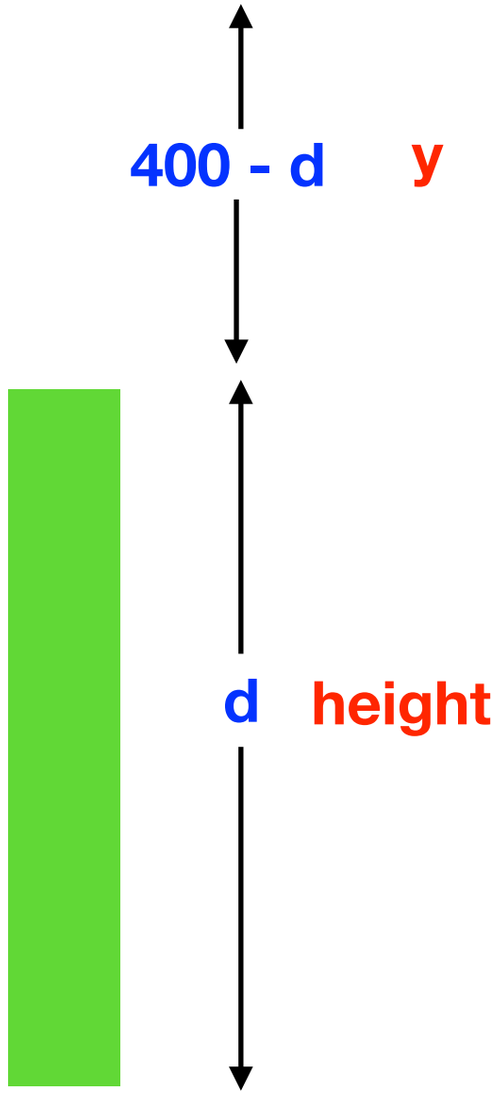
y

so far...

```
.attr("height", d => d)
```

```
.attr("y", d => 400 - d)
```

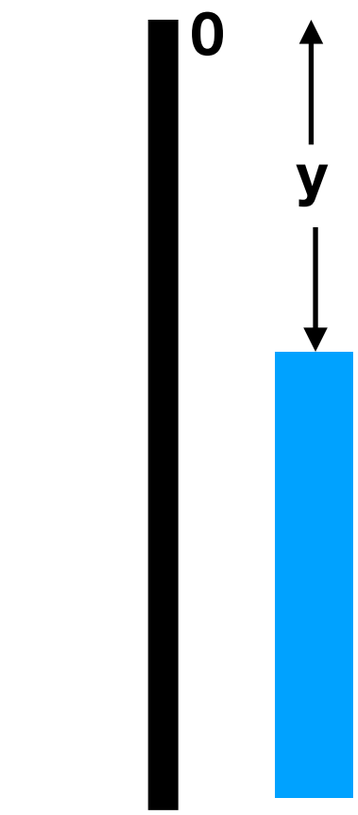
1. the data (d) is the bar height
2. y is the gap on top
3. y + bar height = svg height
4. conceptual leap: y starts at the top



Scales (one approach)

```
var yScale = d3.scaleLinear()
    .domain([0, datamax])
    .range([0, svgheight]);
```

range



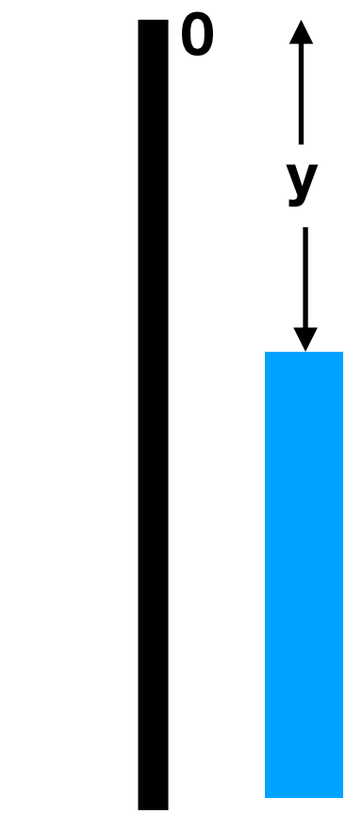

```
.attr("y", d => h - yScale(d));
```

```
.attr("height", d => yScale(d));
```

Scales (approach generally used with axes)

```
var yScale = d3.scaleLinear()
    .domain([0, datamax])
    .range([svgheight, 0]);
```

range




```
.attr("y", d => yScale(d));
```

```
.attr("height", d => h - yScale(d));
```