

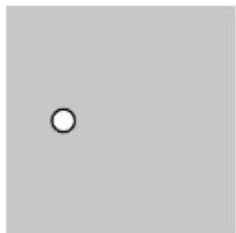
Bar Graph and map()

lesson 3

map(value, lowIn, highIn, lowOut, highOut)

map()

Examples



```
let value = 25;  
let m = map(value, 0, 100, 0, width);  
ellipse(m, 50, 10, 10);  
describe('10x10 white ellipse with in mid left  
canvas');
```

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map(value, lowIn, highIn, lowOut, highOut)

examples to try and talk over with your partner, change the numbers and explore the results

```
map(4, 0, 10, 0, 100)
```

```
map(3, 0, 10, 100, 0)
```

```
map(1995, 1900, 2020, 100, 200)
```

```
map(24, 5, 50, 100, 400)
```

	A	B	C	
1	Animal	Cuteness	Legs	
2	Dog	9	4	
3	Cat	8	4	
4	Snake	2	0	
5	Emu	3	2	
6	Chimpunk	10	4	
7	Kangaroo	7	2	
8				

```
16    // pick a lower corner for your graph, draw a vertical and horizontal
    axis meeting at that corner. You will use these number so line up the bars
    and the lables and scales
17
18
19    //Set up a for loop to draw a rectangle for animals cuteness. Should
    start at the vertical line and extend horizontally depending on the
    cuteness level.
20    // the map() function will allow you to scale the number from 0 to 10, to
    something more like 50 to 350 so it will fill up your graph but still be
    proportional.
21
22    // Use another for loop to draw a numbered scale, you should use a map very
    similar to when you created the rectangle, you want the bars and scale to
    match up.
23
24    // Use another for loop to add the animal lables along the vertical axis
25
26    // CHALLENGE: Have the bars color depend on the number of legs for each
    animal, ex: all 4 legged animals would have one color, 2-legged
    another,...
27 }
```



sketch.js

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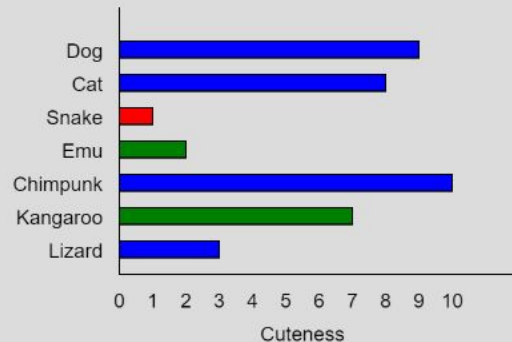
Preview

```
12 let animal = data.getColumn('Animal')
13 let cute = data.getColumn('Cuteness')
14 let legs = data.getColumn('Legs')
15
16 print(cute)
17 for(let i = 0; i<numRows;i++){
18   textAlign(RIGHT);
19   fill(0)
20   text(animal[i],100,100+(i*20))
21
22   if(legs[i]==4){
23     fill("blue")
24   }else if (legs[i]==2){
25     fill("green")
26   }else{
27     fill("red")
28   }
29
30
31   let mapCute = map(cute[i],0,10,0,200)
32   rect(110,90+(i*20),mapCute,10)
33 }
34 fill(0)
35 line(110,70,110,230)
36 line(110,230, 350, 230)
```

Console

Clear

▶ (7) ["9", "8", "1", "2", "10", "7", "3"]





sketch.js

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