

Switch JS

Classes, Constructor, new

Create a Vector object that supports addition, subtraction, dot products, and norms. So, for example:

```
var a = new Vector([1, 2, 3]);  
var b = new Vector([3, 4, 5]);  
var c = new Vector([5, 6, 7, 8]);
```

```
a.add(b);    // should return a new Vector([4, 6, 8])  
a.subtract(b); // should return a new Vector([-2, -2, -2])  
a.dot(b);    // should return  $1*3 + 2*4 + 3*5 = 26$   
a.norm();    // should return  $\sqrt{1^2 + 2^2 + 3^2} = \sqrt{14}$   
a.add(c);    // throws an error
```

If you try to add, subtract, or dot two vectors with different lengths, you must throw an error.

Also provide:

a toString method, so that using the vectors from above, `a.toString() === '(1,2,3)'`
an equals method, to check that two vectors that have the same components are equal