

## 4 kyu Vigenère Cipher Helper

☆ 787 🏆 130 📈 90% of 977 📊 3,060 of 7,243 👤 jacobbb 🚩 7 Issues Reported

Instructions Output

Time: 764ms Passed: 4 Failed: 0

## Test Results:

## Testing with lowercase latin alphabet

- Password of 'password'
- Password of 'pizza'
- Password of 'attackatdawn', random tokens

Completed in 2ms

## Testing with katakana alphabet

- Password of 'カタカナ'

You have passed all of the tests! :)

JavaScript

Node v18.x

VIM

EMACS



## Solution

```
1 function VigenèreCipher(key, abc) {
2   this.encode = function (str) {
3     let correctKey = "";
4     while (correctKey.length < str.length) correctKey += key;
5     correctKey = correctKey.slice(0, str.length);
6     let encoded = "";
7     for (let i = 0; i < correctKey.length; i++)
8     {
9       if (abc.includes(str[i]))
10      {
11        let ind = abc.indexOf(str[i]) + abc.indexOf(correctKey[i]);
12        if (ind >= abc.length) ind = ind - abc.length;
13        encoded += abc[ind];
14      }
15      else encoded += str[i];
16    }
17    return encoded;
18  };
19 }
```

```
20 this.decode = function (str) {
21   let correctKey = "";
22   while (correctKey.length < str.length) correctKey += key;
```

Correctamundo! You may take your time to refactor/comment your solution. Submit when ready.

## Sample Tests

```
1 const Test = require('@codewars/test-compat');
2
3 describe("Tests", () => {
4   it("test", () => {
5     var abc, key;
6     abc = "abcdefghijklmnopqrstuvwxyz";
7     key = "password"
8     c = new VigenèreCipher(key, abc);
9
10    Test.assertEquals(c.encode('codewars'), 'rovwsoiv');
11    Test.assertEquals(c.decode('rovwsoiv'), 'codewars');
12
13    Test.assertEquals(c.encode('waffles'), 'laxxhsj');
14    Test.assertEquals(c.decode('laxxhsj'), 'waffles');
```

SKIP

UNLOCK SOLUTIONS

DISCUSS (156)

RESET

TEST

SUBMIT

Kata Training

5 kyu

Vector class

☆ 563 🌐 122 📈 88% of 822 📊 2,982 of 7,258 👤 eugene-bulkin 🚩 8 Issues Reported

InstructionsOutput

Time: 811ms Passed: 6 Failed: 0

Test Results:

Testing arithmetic

- Addition
- Subtraction
- Dot Product
- Norms

Completed in 1ms

Auxiliary function

- Equality
- Strings

You have passed all of the tests! :)

JavaScriptNode v18.x

VIMEMACS

Solution

```
1 class Vector {
2   constructor(components) {
3     this.components = components;
4   }
5   add(other) {
6     if (this.components.length !== other.components.length)
7     {
8       throw new Error("err");
9     }
10    let newArr = [];
11    for (let i = 0; i < this.components.length; i++)
12    {
13      newArr.push(other.components[i] + this.components[i]);
14    }
15    return new Vector(newArr);
16  }
17
18  subtract(other) {
19    if (this.components.length !== other.components.length)
20    {
21      throw new Error("err");
22    }
23  }
24 }
```

Great! You may take your time to refactor/comment your solution. Submit when ready.

Sample Tests

```
1 const Test = require('@codewars/test-compat');
2
3 describe("Tests", () => {
4   it("test", () => {
5     var a = new Vector([1,2]);
6     var b = new Vector([3,4]);
7
8     Test.expect(a.add(b).equals(new Vector([4,6])));
9   });
10 });
11
```

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Kata Training

4 kyu

The Greatest Warrior ✓

☆ 649

👤 133

📈 93% of 568

🌐 828 of 3,011

👤 BurstNova

🚩 6 Issues Reported

Instructions

Output

Past Solutions

Time: 756ms

Passed: 2

Failed: 0

Test Results:

▼ Kata Tests

> Standard Tests

> Random Tests

Completed In 5ms

You have passed all of the tests! :)

JavaScript

Node v18.x

VIM

EMACS

Solution

```
1 class Warrior
2 {
3   constructor ()
4   {
5     this.charLevel = 1;
6     this.charRank = "Pushover";
7     this.charExp = 100;
8     this.charAchiv = [];
9     this.arrOfRanks = ["Pushover", "Novice", "Fighter", "Warrior", "Veteran", "Sage", "Elite", "Conqueror", "Champion", "Master",
10   }
11   update ()
12   {
13     if (this.charExp > 10000) this.charExp = 10000;
14     this.charLevel = Math.floor(this.charExp/100);
15     this.charRank = this.arrOfRanks[Math.floor(this.charLevel/10)];
16   }
17   training (trainArr)
18   {
19     if (trainArr[2] > this.charLevel) return "Not strong enough";
20     else
21     {
22       Good Job! You may take your time to refactor/comment your solution. Submit when ready.
```

Sample Tests

```
1 const Test = require('@codewars/test-compat');
2
3 describe("Kata Tests",function(){
4   it("Standard Tests", function(){
5     var Goku = new Warrior();
6
7     Test.assertDeepEquals(Goku.level(), 1, "All warriors must start as LV 1")
8     Test.assertDeepEquals(Goku.rank(), "Pushover", "All warriors must start as a Pushover")
9     Test.assertDeepEquals(Goku.achievements(), [], "All warriors must start off with no achievements to their name")
10    Test.assertDeepEquals(Goku.training(["Do ten push-ups", 95, 1]), "Do ten push-ups", "After obtaining a mastery, the achievement")
11    Test.assertDeepEquals(Goku.level(), 1, "After your warriors's first training, he/she must still be LV 1")
12    Test.assertDeepEquals(Goku.battle(0), "Invalid level", "LV 0 enemies do not exist. This must be a mistake!")
13    Test.assertDeepEquals(Goku.battle(1), "A good fight", "After fighting against a warrior of equal level, your warrior should pro")
14    Test.assertDeepEquals(Goku.battle(1), "With that fight under your belt, your warrior should now be ascended to LV 2")
15  })
16 })
```

▶▶ SKIP

🔗 VIEW SOLUTIONS

💬 DISCUSS (74)

🔄 RESET

TEST

SUBMIT

## 5kyu PaginationHelper ✓

☆ 1657 🌟 314 🔄 81% of 3,151 🕒 12,416 of 34,264 👤 jhoffner 🚩 8 Issues Reported

Instructions Output Past Solutions

Time: 826ms Passed: 102 Failed: 0

## Test Results:

## Tests suite

sample test : 24 items with 10 per page

empty collection

random tests

Completed in 16ms

You have passed all of the tests! :)

JavaScript

Node v18.x

VIM EMACS

## Solution

```
1 class PaginationHelper {
2   constructor(collection, itemsPerPage)
3   {
4     this.collection = collection;
5     this.itemsPerPage = itemsPerPage;
6   }
7   itemCount() {
8     return this.collection.length;
9   }
10  pageCount() {
11    return Math.ceil(this.collection.length/this.itemsPerPage);
12  }
13  pageItemCount(pageIndex) {
14    if (Math.ceil(this.collection.length/this.itemsPerPage)-1 < pageIndex || pageIndex < 0) return -1;
15    if (Math.ceil(this.collection.length/this.itemsPerPage)-1 > pageIndex) return (this.itemsPerPage);
16    if (Math.ceil(this.collection.length/this.itemsPerPage)-1 == pageIndex)
17    {
18      if (Math.floor(this.collection.length/this.itemsPerPage) != this.collection.length/this.itemsPerPage)
19      {return (this.collection.length - (Math.floor(this.collection.length/this.itemsPerPage))*this.itemsPerPage);}
20      else return this.itemsPerPage;
21    }
22  }
23 }
```

🌟 Outstanding! You may take your time to refactor/comment your solution. Submit when ready.

## Sample Tests

```
1 describe("Tests suite", () => {
2   const { strictEqual } = require('chai').assert;
3
4   function doTest(instance, methodName, expected, ...args) {
5     const actual = instance[methodName](...args);
6     strictEqual(actual, expected, `for ${methodName}(${args.join(', ')})`);
7   }
8
9   it("sample test : 24 items with 10 per page", () => {
10    const collection = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24]
11    const helper = new PaginationHelper(collection, 10)
12
13    doTest(helper, 'pageCount', 3);
14    doTest(helper, 'itemCount', 24);
15  });
16 }
```

⏩ SKIP 🔗 VIEW SOLUTIONS 💬 DISCUSS (265) RESET

TEST

SUBMIT