**Rest / Spread Operator Exercises**

In this exercise, you’ll refactor some ES5 code into ES2015.

**Given this function:**

**function** filterOutOdds() {

**var** nums = Array.prototype.slice.call(arguments);

**return** nums.filter(**function**(num) {

**return** num % 2 === 0

});

}

**Refactor it to use the rest operator & an arrow function:**

*/\* Write an ES2015 Version \*/*

**1.) const filterOutOdds = (...nums) => nums.filter(num => num % 2 === 0);**

**findMin**

Write a function called findMin that accepts a variable number of arguments and returns the smallest argument.

Make sure to do this using the rest and spread operator.

findMin(1,4,12,-3) *// -3*

findMin(1,-1) *// -1*

findMin(3,1) *// 1*

**1.) const findMin = ...nums) => Math.min(...nums);**

**mergeObjects**

Write a function called ***mergeObjects*** that accepts two objects and returns a new object which contains all the keys and values of the first object and second object.

mergeObjects({a:1, b:2}, {c:3, d:4}) *// {a:1, b:2, c:3, d:4}*

**1.) const mergeObjects = (object1, object2) => ({...object1, ...object2});**

**doubleAndReturnArgs**

Write a function called ***doubleAndReturnArgs*** which accepts an array and a variable number of arguments. The function should return a new array with the original array values and all of additional arguments doubled.

doubleAndReturnArgs([1,2,3],4,4) *// [1,2,3,8,8]*

doubleAndReturnArgs([2],10,4) *// [2, 20, 8]*

**1.) const doubleAndReturnArgs = (array, ...arguments) => [...array, ...arguments.map(num => num \* 2)];**

**Slice and Dice!**

For this section, write the following functions using rest, spread and refactor these functions to be arrow functions!

Make sure that you are always returning a new array or object and not modifying the existing inputs.

*/\*\* remove a random element in the items array*

*and return a new array without that item. \*/*

**function** removeRandom(items) {

}

**1.) const removeRandom = (items) => {**

**let index = Math.floor(Math.random() \* items.length);**

**return [...items.slice(0, index), ...items.slice(index + 1);**

**}**

*/\*\* Return a new array with every item in array1 and array2. \*/*

**function** extend(array1, array2) {

}

**1.) const extend = (array1, array2) => {**

**return [...array1, ...array2];**

**}**

*/\*\* Return a new object with all the keys and values*

*from obj and a new key/value pair \*/*

**function** addKeyVal(obj, key, val) {

}

**1.) const addKeyVal = (obj, key, val) => {**

**let newObject = {...obj};**

**newObject[key] = val;**

**return newObject;**

**}**

*/\*\* Return a new object with a key removed. \*/*

**function** removeKey(obj, key) {

}

**1.) const removekey = (obj, key) => {**

**let newObject = {...obj};**

**delete newObject[key];**

**return newObject;**

**}**

*/\*\* Combine two objects and return a new object. \*/*

**function** combine(obj1, obj2) {

}

**1.) const combine = (obj1, obj2) => {**

**Return {...obj1, ...obj1};**

**}**

*/\*\* Return a new object with a modified key and value. \*/*

**function** update(obj, key, val) {

}

**1.) const update = (obj, key, val) => {**

**let newObject = {...obj};**

**newObject[key] = val;**

**return newObject;**

**}**