If you are already familiar with arrays in other programming languages, you won't be surprised here.

An array in bash is a variable that allows you to refer to multiple values. In bash, arrays are also zero-based, that is, the first element in an array has an index of 0.

When dealing with arrays, we should be aware of the special environment variable `IFS`. **IFS** or **Input Field Separator** — is the character that separates elements in an array. The default value is an empty space `IFS=' '`.

Array declaration

In bash you create an array by simply assigning a value to an index in the array variable:

```
fruits[0]=Apple
fruits[1]=Pear
fruits[2]=Plum
echo ${fruits[*]} # echo ${fruits[@]} may be used as well
```

Array variables can also be created using compound assignments such as:

```
fruits=(Apple Pear Plum)
```

Array slice

Also, we can extract a slice of an array using the *slice* operators:

```
echo ${fruits[*]:0:2} # Apple Pear
echo ${@:1:2} # slice of positional parameters
```

In the example above, `fruits[*]` returns the entire contents of the array, and `:0:2` extracts the slice of length 2, that starts at index 0.

Adding elements into an array

Adding elements into an array is quite simple too. Compound assignments are specially useful in this case. We can use them like this:

```
fruits=(Orange ${fruits[*]} Banana Cherry)
echo ${fruits[*]} # Orange Apple Pear Plum Banana Cherry
```

In the example above, `fruits[*]` represents the entire contents of the array and substitutes it into the compound assignment, then assigns the new value into the `fruits` array, mutating its original value.

Deleting elements from an array

To delete an element from an array, use the `unset` command:

```
unset fruits[0]
echo ${fruits[*]} # Apple Pear Plum Banana Cherry
```

THE CHALLENGE

Create a file named `arrays.bash`.

A few values will be passed into your script through positional parameters. As you already know, all parameters which were passed into the script are stored in `$*` and `$@` variables. These variables are none other than arrays.

You should take slice of elements consisting of the second to third items (eventually two items). Save these elements into a new array. Add to the beginning of the array two new items, `I` and `am`. Add to the end of the array two items: `and` and the fourth positional argument.

Output all elements of the array.

For example, if you run your script with these arguments:

```
./arrays.bash awesome cool strong cute awesome
```

The script must output this:

```
I am cool strong and cute
```
