**R Arrays**

Compared to matrices, arrays can have more than two dimensions.

We can use the array() function to create an array, and the dim parameter to specify the dimensions:

**Example**

# An array with one dimension with values ranging from 1 to 24

thisarray <- c(1:24)

thisarray

# An array with more than one dimension

multiarray <- array(thisarray, dim = c(4, 3, 2))

multiarray

You can also access the whole row or column from a matrix in an array, by using the c() function:

thisarray <- c(1:24)

# Access all the items from the first row from matrix one

multiarray <- array(thisarray, dim = c(4, 3, 2))

multiarray[c(1),,1]

# Access all the items from the first column from matrix one

multiarray <- array(thisarray, dim = c(4, 3, 2))

multiarray[,c(1),1]

Check if an Item Exists

To find out if a specified item is present in an array, use the %in% operator:

**Example**

Check if the value "2" is present in the array:

thisarray <- c(1:24)

multiarray <- array(thisarray, dim = c(4, 3, 2))

2 %in% multiarray

Amount of Rows and Columns

Use the dim() function to find the amount of rows and columns in an array:

**Example**

thisarray <- c(1:24)

multiarray <- array(thisarray, dim = c(4, 3, 2))

dim(multiarray)

**Array Length**

Use the length() function to find the dimension of an array:

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**Example**

thisarray <- c(1:24)

multiarray <- array(thisarray, dim = c(4, 3, 2))

length(multiarray)

**Loop Through an Array**

You can loop through the array items by using a for loop:

**Example**

thisarray <- c(1:24)

multiarray <- array(thisarray, dim = c(4, 3, 2))

for(x in multiarray){

print(x)

}