

PHP arrays & loops – Mentor session

1) Write a script that for a numbers n and m where n is lower than m prints the sum of the numbers from n to m. If n is higher than m you should write message: wrong numbers are provided.

2) Write a script that checks whether already defined element occurs in an array of numbers and how many times.

3) Write a script that reverses already defined array(elements in the array could be mix of numbers, words...)

Ex: [3,5,'Hello', 2,] -> [2,'Hello',5,3]

4) Write a script that takes a number and returns an array of its digits.

Ex: 2342 -> [2,3,4,2].

5) Write a script that will define number that will be searched in array of numbers. Create associative array in which the key will be the position and the value will be the number that is searched in the array .

Ex:

```
$number = 23
```

```
$array = [11,23,45,23,48,65]
```

Result:

```
$resultArray = [  
    1 => 23,  
    3 => 23  
]
```

6) Write a script that rotates a list by k elements. For example [1,2,3,4,5,6] rotated by two becomes [3,4,5,6,1,2].

7) Write a script that for already defined number will make transformations after which the original number is replaced with the sum of its digits. The transformation stops when the number becomes single digit. Also count how many transformations are done.

Ex:

```
number = 259
```

```
first transformation: 2+5+9= 16
```

```
second transformation: 1+6=7
```

Result:

total 2 transformations are done and the result is 7.

8) One theater decided to implement system in which every visitor receives 3 digit number. From that number the visitor knows which gateway to use and the type of visitor(vip or regular)

If the first digit of the number is 1 -> vip visitor.

If the first digit is between 2 and 9 -> regular visitor.

The gateway that visitor need to use is defined by the number created from second and third digit of the number and the division by 3

If the remainder is 0 -> first gateway

If the remainder is 1 -> second gateway

If the remainder is 2 -> third gateway

The script need to print the type of visitor and the gateway for given 3 digit number.

Example:

\$number = 352

Result:

Regular visitor, use first gateway(52%3)