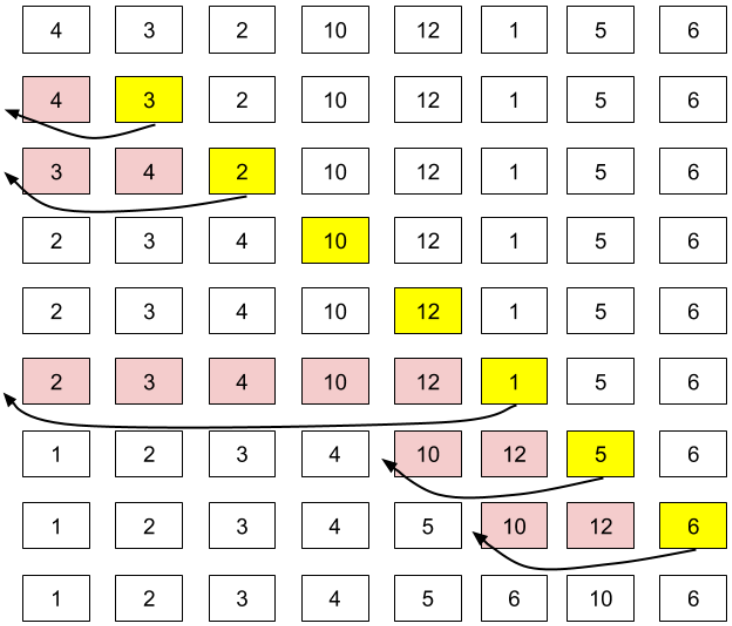
4.2 Insertion sort

Due 30 Sep 2019 by 23:59 **Points** 0 **Submitting** an external tool

Insertion sort is a simple sorting algorithm that works the way we sort playing cards in our hands. It works like this: For the second to the last element in a vector, insert it into the already sorted sequence to its left. This can best be illustrated by the following image:



Write a program that implements insertion sort. The program should first ask the user how many elements the list to be sorted contains. Next, the program asks the user for to enter the list of whole numbers to be sorted. The program should sort the list using insertion sort and print the sorted list to standard output. Make sure the program also catches any invalid input.

Write a function insertionSort with return type void that sorts a vector it gets as its sole parameter.

Correct executions of the program are shown below:

```
Please enter the number of elements: 4
Enter the list to be sorted: 34 6 3 976
The sorted list is: 3 6 34 976
```

```
Please enter the number of elements: 4
Enter the list to be sorted: 34 6a 3 976
error: invalid input
```

This tool needs to be loaded in a new browser window

Load 4.2 Insertion sort in a new window