**Sorting Arrays**

We will investigate two ways to put arrays into ascending order: selection sort and insertion sort.

**Selection Sort**

Selection sort finds the smallest number in the array and swaps it with the first element. It then finds the smallest number remaining and swaps it with the second element. This continues until only a single number remains.

Assume an integer array, nums, with the following six values stored in it: {6, 8 , 1, 4, 3, 9}

**Selection Sort Code**

for(int x = 0; x < nums.length – 1; x++){

 int min = nums[x];

 int minIndex = x;

 for(int y = x+1; y < nums.length; y++){

 if (min > nums[y]){

 min = nums[y];

 minIndex = y;}} // end inner for loop

 if (min!= x){

 nums[minIndex]= nums[x];

 nums[x]=min;}}