1:

```
public void revisedSelectionSort(int a[], int n) {

      // define min and max index stores
      int idxMin, idxMax;
      // sweep left ot right
      for(int i = 0; i < n; i++) {

         //set indexes relative to outsides of sub array
         idxMin = n-i-1;
         idxMax = i;
         for(int j = i; j < n-i; j++) {

            // check for a max
            if(a[j] > a[idxMax]) {
               idxMax = j;
            }

            //check for a min
            if(a[j] < a[idxMin]) {
               idxMin = j;
            }

         }

         // perform max swap at index i
         int t = a[i];
         a[i] = a[idxMax];
         a[idxMax] = t;

         // perform min swap at index n-1-i
         t = a[n-1-i];
         a[n-1-i] = a[idxMin];
         a[idxMin] = t;
      }

   }
```

2:

The number of comparisons in the revised selection sort vs the number of comparisons in the original selection sort is the same. The original selection sort, there was 1 comparison per pass through the array. The revised selection sort uses 2 comparisons per pass but reduces the

number of iterations by half through creating sub arrays that size decrease by 2 per pass vs the 1 per pass of the original.