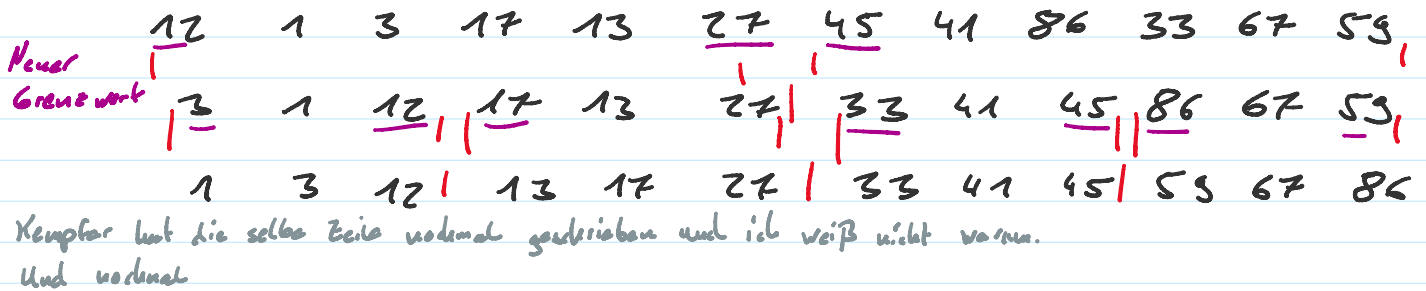
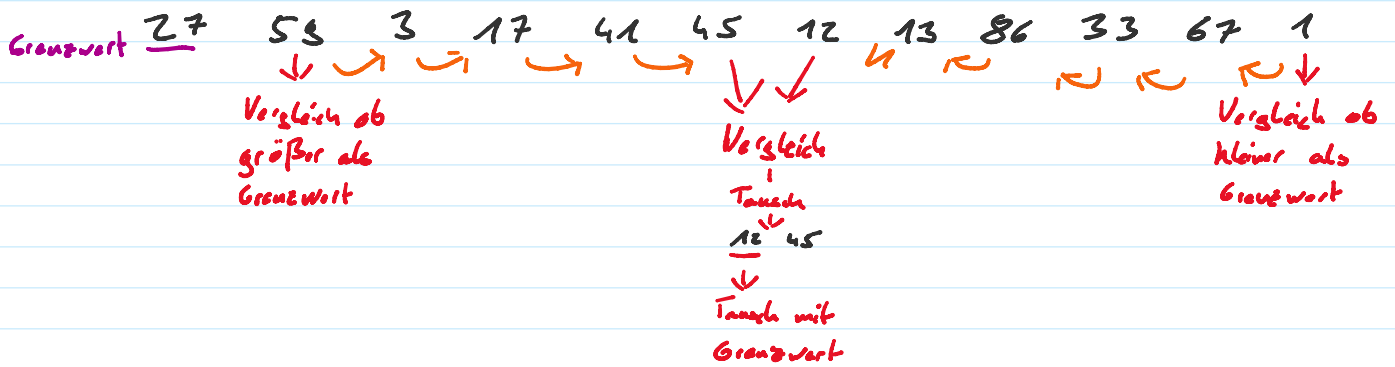


# Quick Sort

Donnerstag, 16. November 2023 16:44



```
void Qsort(int *A, int ui, int oi, int (*compare)(int *, int *)){
    int idx;

    if(ui >= oi) return;
    else{
        idx = partition(A, ui, oi, compare);
        Qsort(A, ui, idx-1, compare);
        Qsort(A, idx+1, oi, compare);
    }
}
```

```
void QuickSort(int *A, int Anz, int (*compare)(int *, int *)){
    Qsort(A, 0, Anz-1, compare);
}
```

3 ???

```
int partition(int *A, int ui, int oi, int (*compare)(int *, int *)){
    int i = ui+1, j = oi;
    int *cmp = A+ui;

    while(i <= j){
        while((i <= j) && (compare(A+i, cmp) <= 0)) i++;
        while((j >= i) && (compare(A+j, cmp) >= 0)) j--;

        if(i < j){
            swap(A+i, A+j);
            i++;
            j--;
        }
    }
    i--;
    swap(A+i, cmp);

    return i;
}
```

```
int compare(int *A, int *B){
    return *A-*B;
}
```