

快速排序

```
var quickSort = function(arr) {  
    if (arr.length <= 1) { return arr; }  
    var pivotIndex = Math.floor(arr.length / 2);    //基准位置 (理论上可任意选取)  
    var pivot = arr.splice(pivotIndex, 1)[0];    //基准数  
    var left = [];  
    var right = [];  
    for (var i = 0; i < arr.length; i++){  
        if (arr[i] < pivot) {  
            left.push(arr[i]);  
        } else {  
            right.push(arr[i]);  
        }  
    }  
    return quickSort(left).concat([pivot], quickSort(right));    //链接左数组、基准数构成的数组、右数组  
};
```

选择排序

```
function selectionSort(arr) {  
    var len = arr.length;  
    var minIndex, temp;  
    for (var i = 0; i < len - 1; i++) {  
        minIndex = i;  
        for (var j = i + 1; j < len; j++) {  
            if (arr[j] < arr[minIndex]) {    // 寻找最小的数  
                minIndex = j;    // 将最小数的索引保存  
            }  
        }  
        temp = arr[i];  
        arr[i] = arr[minIndex];  
        arr[minIndex] = temp;  
    }  
    return arr;  
}
```

希尔排序

```
function shellSort(arr) {  
    var len = arr.length,  
        temp,  
        gap = 1;  
    while(gap < len/3) { //动态定义间隔序列  
        gap = gap*3+1;  
    }  
    for (gap; gap > 0; gap = Math.floor(gap/3)) {  
        for (var i = gap; i < len; i++) {  
            temp = arr[i];  
            for (var j = i-gap; j >= 0 && arr[j] > temp; j -= gap) {  
                arr[j+gap] = arr[j];  
            }  
            arr[j+gap] = temp;  
        }  
    }  
    return arr;  
}
```