Adding and Removing Elements

The following array contains the marks in computer science class:

60	78	74	80	74	78	88	90	74	68

1. Add the following mark to the array: 93

```
int [] mark = {60,78,74,80,74,78,88,90,74,68};
int [] temp = new int [mark.length+1];
for (int x=0; x<mark.length; x++) {
   temp [x] = mark[x];
}
temp[temp.length-1] = 93;
mark = temp;
for (int x=0; x<mark.length; x++) {
   System.out.println(mark[x]);
}
```

2. Arrange the array in order from smallest to largest. Add the following mark (74) to the array in order.

```
int [] mark = {60,78,74,80,74,78,88,90,74,68};
int [] temp = new int [mark.length+1];
for (int x=0; x<mark.length; x++) {
   temp[x] = mark[x];
}
temp [temp.length-1] = 74;
mark = temp;
boolean fixed = false;
while (fixed==false) {
   fixed = true;
   for (int x=0; x<mark.length-1; x++) {
      if (mark[x]>mark[x+1]) {
      int store = mark[x];
      mark[x] = mark[x+1];
      mark[x+1] = store;
      fixed = false;
      }
   }
}
for (int x=0; x<mark.length; x++) {
   System.out.println(mark[x]);
}
```

3. Arrange the array in order from smallest to largest. Search the array and remove the following element from the array (80)

```
int [] mark = {60,78,74,80,74,78,88,90,74,68};
boolean fixed = false;
while(fixed==false) {
   fixed=true;
   for (int x=0; x<mark.length-1; x++) {
         if (mark[x]>mark[x+1]) {
```

```
            int temp = mark[x];
            mark[x]=mark[x+1];
            mark[x+1]=temp;
            fixed=false;
            }
        }
    }

    int c=0;
    for (int x=0; x<mark.length; x++) {
        if (mark[x]==80) {
        c=x;
        }
    }
    for (int x=c; x<mark.length-1; x++){
        mark[x] = mark[x+1];
    }
    for (int x=0; x<mark.length; x++) {
        System.out.println(mark[x]);
    }
```

4. Write a program that will prompt the user for a mark. The program add the mark to the array in order.

```
Scanner input = new Scanner (System.in);
int [] mark = {60,78,74,80,74,78,88,90,74,68};
System.out.println("Enter mark:");
int markAdd = input.nextInt();
int [] temp = new int [mark.length+1];
for (int x=0; x<mark.length; x++) {
    temp[x] = mark[x];
}
temp[temp.length-1] = markAdd;
mark = temp;
boolean fixed = false;
while (fixed==false) {
    fixed = true;
    for (int x=0; x<mark.length-1; x++) {
            if (mark[x]>mark[x+1]) {
                    int memory = mark[x];
                    mark[x] = mark[x+1];
                    mark[x+1] = memory;
                    fixed = false;
            }
    }
}
for (int x=0; x<mark.length; x++) {
    System.out.println(mark[x]);
}
```

5. Write a program that will prompt the user for a mark. The program will search the array and remove it if the mark is found in the array.

```
Scanner input = new Scanner (System.in);
```

```
int [] mark = {60,78,74,80,74,78,88,90,74,68};
System.out.println("Enter mark:");
int markSearch = input.nextInt();
int index=0;
for (int x=0; x<mark.length; x++) {
   if (mark[x]==markSearch) {
   index=x;
   }
}
for (int x=index; x<mark.length-1; x++) {
   mark[x] = mark[x+1];
}
for (int x=0; x<mark.length; x++) {
   System.out.println(mark[x]);
}
```