

## Zadatak 1.

a.

```

File Edit Format Run Options Windows Help
# 04_01_a
def sortiraj(lista):
    for i in range(len(lista) - 1):
        for j in range(i + 1, len(lista)):
            if lista[i] < lista[j]:
                lista[i], lista[j] = lista[j], lista[i]
    return lista

n = int(input())
a = []
for i in range(n):
    a.append(int(input()))

a = sortiraj(a)
for t in a:
    print(t, end = ' ')

```

b.

```

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# 04_01_b
def sort_umetanjem(lista):
    for i in range(1, len(lista)):
        j = i
        while j > 0 and lista[j] > lista[j - 1]:
            lista[j - 1], lista[j] = lista[j], lista[j - 1]
            j -= 1
    return lista

n = int(input())
a = []
for i in range(n):
    a.append(int(input()))

a = sort_umetanjem(a)
for t in a:
    print(t, end = ' ')

```

## 4

## Zadatak 2.

a.

```
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# 04_02_a
def sort_bubble(lista):
    k = 1
    zamjene = True
    while zamjene:
        zamjene = False
        for i in range(len(lista) - k):
            if len(lista[i]) > len(lista[i + 1]):
                lista[i], lista[i + 1] = lista[i + 1], lista[i]
                zamjene = True
        k += 1
    return lista

a = input().split()
a = sort_bubble(a)
for t in a:
    print(t)
```

b.

```
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# 04_02_b
def sort_izborom(lista):
    for i in range(len(lista) - 1):
        k = i
        for j in range(i + 1, len(lista)):
            if len(lista[k]) > len(lista[j]):
                k = j
        if k != i:
            lista[i], lista[k] = lista[k], lista[i]
    return lista

a = input().split()
a = sort_izborom(a)
for t in a:
    print(t)
```

## 4

## Zadatak 3.

a.

```
File Edit Format Run Options Windows Help
# 04_03_a
def sort_umetanjem(lista):
    for i in range(1, len(lista)):
        j = i
        while j > 0 and (lista[j][0] < lista[j - 1][0]\
            or (lista[j][0] == lista[j - 1][0]\
            and lista[j][1] > lista[j - 1][1])):
            lista[j - 1], lista[j] = lista[j], lista[j - 1]
            j -= 1
    return lista

n = int(input())
a = []
for i in range(n):
    a.append(input().split())
a = sort_umetanjem(a)
for t in a:
    print(t[0], t[1])
```

b.

```
File Edit Format Run Options Windows Help
# 04_03_b
def sort_bubble(lista):
    k = 1
    zamjene = True
    while zamjene:
        zamjene = False
        for i in range(len(lista) - k):
            if lista[i][0] > lista[i + 1][0]\
                or (lista[i][0] == lista[i + 1][0]\
                and lista[i][1] < lista[i + 1][1]):
                lista[i], lista[i + 1] = lista[i + 1], lista[i]
                zamjene = True
        k += 1
    return lista

n = int(input())
a = []
for i in range(n):
    a.append(input().split())
a = sort_bubble(a)
for t in a:
    print(t[0], t[1])
```