

Lab2 Ivan Isakov

3)

```
The sorted array is
1234
```

5)

Data	Text				
Data					
User data segment [10000000]..[10040000]					
[10000000]..[1000ffff]	00000000				
[10010000]	00000005	00000007	00000004	00000003
[10010010]	6568540a	726f7320	20646574	61727261	. T h e s o r t e d a r r a
[10010020]	73692079	200a2020	00000000	00000004	y i s
[10010030]..[1003ffff]	00000000				

Data is allocated between 0x10000000 to 0x1000ffff, but the first variable starts at 0x10010000

msg = 4097 + 16 = 0x10010010

count = 4097 + 44 = 10010000 + 2C = 0x1001002C

6)

The array starts of as [5, 7, 4, 3], it gets decremented by count to [4, 3, 2, 1] and then it sorts it.

8)

```
[4, 3, 2, 1]
[3, 4, 2, 1]
[3, 2, 4, 1]
[3, 2, 1, 4]
[3, 2, 1, 4]
[2, 3, 1, 4]
[2, 1, 3, 4]
[2, 1, 3, 4]
[2, 1, 3, 4]
[1, 2, 3, 4]
[1, 2, 3, 4]
[1, 2, 3, 4]
[1, 2, 3, 4]
[1, 2, 3, 4]
[1, 2, 3, 4]
```

So this is a sorting algorithm

10)

Array -> 4, 4, 2, 1-> 7, 7, 1-> 2, 7, 7 -> 2, 2, 7

R12 ->0, 2, 1, 1

```
The sorted array is
0127
```

12)

The sorted array is
12345678