

# CIS\*2500 A4 – Input/Output Example for a4q2

The commands in recursion.input are:

```
count_up      10
count_down    10
p   3.58      34
p   2.14      47
p   3.27      34
a   2.23      55
a   2.39      32
p   3.29      47
p   2.24      42
p   2.6        51
a   3.12       2
a   4.4        4
a   3.01      24
a   2.1       36
print_all
print_sort
nth 3 INSERTED_ORDER
nth 7 SORTED_ORDER
nth 15 INSERTED_ORDER
remove_nth 3 INSERTED_ORDER
remove_nth 3 SORTED_ORDER
remove_nth 0 INSERTED_ORDER
remove_nth 0 SORTED_ORDER
remove_nth 15 INSERTED_ORDER
remove_nth 7 INSERTED_ORDER
remove_nth 6 SORTED_ORDER
a   5.5        5
print_all
print_sort
```

The output printed to stdout after running these commands is:

```
count_up from 0 to 10
    0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
count_down from 20 to 0 by 2
    20, 18, 16, 14, 12, 10, 8, 6, 4, 2, 0
p:      3.58  34
p:      2.14  47
p:      3.27  34
a:      2.23  55
a:      2.39  32
p:      3.29  47
p:      2.24  42
p:      2.6   51
a:      3.12   2
a:      4.4    4
a:      3.01  24
a:      2.1   36
```

```

print_all: Insertion Order
  2.6 51
  2.24 42
  3.29 47
  3.27 34
  2.14 47
  3.58 34
  2.23 55
  2.39 32
  3.12 2
  4.4 4
  3.01 24
  2.1 36
print_sort: Key Sort Order
  2.1 36
  2.14 47
  2.23 55
  2.24 42
  2.39 32
  2.6 51
  3.01 24
  3.12 2
  3.27 34
  3.29 47
  3.58 34
  4.4 4
nth:      n = 3, Insertion Order
  3.27 34
nth:      n = 7, Key Sort Order
  3.12 2
nth:      n = 15, FAILED, n >= size where size = 12
remove_nth: n = 3, Insertion Order
  3.27 34
remove_nth: n = 3, Key Sort Order
  2.24 42
remove_nth: n = 0, Insertion Order
  2.6 51
remove_nth: n = 0, Key Sort Order
  2.1 36
remove_nth: n = 15, FAILED, n >= size where size = 8
remove_nth: n = 7, Insertion Order
  3.01 24
remove_nth: n = 6, Key Sort Order
  4.4 4
a:      5.5 5
print_all: Insertion Order
  3.29 47
  2.14 47
  3.58 34
  2.23 55
  2.39 32
  3.12 2
  5.5 5
print_sort: Key Sort Order
  2.14 47
  2.23 55
  2.39 32
  3.12 2
  3.29 47
  3.58 34
  5.5 5

```