(1) 선택 정렬

□ ADL

--------------------------------------------------------------------

selectionSort(a[], n)

for (i ← 1; i < n; i ← i + 1) do {

minIndex ← i;

for (j ← i + 1; j ≤ n; j ← j + 1) do {

if (a[j] < a[minIndex]) then minIndex ← j;

a[i]와 a[minIndex]를 교환;

}

}

end selectionSort()

--------------------------------------------------------------------

□ 파이썬 소스 코드

--------------------------------------------------------------------

def selectionSort(a, n):

for i in range(1, n):

minIndex = i

for j in range(i+1, n+1):

if a[minIndex] > a[j]: minIndex = j

a[minIndex], a[i] = a[i], a[minIndex]

--------------------------------------------------------------------

(2) 버블 정렬

□ ADL

--------------------------------------------------------------------

bubbleSort(a[], n)

for (i ← n; i > 1; i ← i - 1) do

for (j ← 1; j < i; j ← j + 1) do

if (a[j] > a[j+1]) then a[j]와 a[j+1]을 교환;

end bubbleSort()

--------------------------------------------------------------------

□ 파이썬 소스 코드

--------------------------------------------------------------------

ef bubbleSort(a, n):

for i in range(n, 1, -1):

for j in range(1, i):

if a[j] > a[j+1]: a[j], a[j+1] = a[j+1], a[j]

--------------------------------------------------------------------

(3) 삽입 정렬

□ ADL

--------------------------------------------------------------------

insertionSort(a[], n)

for (i ← 2; i ≤ n; i ← i + 1) do {

v ← a[i];

j ← i;

while (a[j-1] > v) do {

a[j] ← a[j-1];

j ← j - 1;

}

a[j] ← v;

}

end insertionSort()

--------------------------------------------------------------------

□ 파이썬 소스 코드

--------------------------------------------------------------------

def insertionSort(a, n):

for i in range(2, n+1):

v, j = a[i], i

while a[j-1] > v:

a[j] = a[j-1]

j -= 1

a[j] = v

--------------------------------------------------------------------

(4) 쉘 정렬

□ ADL

--------------------------------------------------------------------

shellSort(a[], n)

for (h ← 1; h < n; h ← 3 × h + 1) do { }; // 첫 번째 h 값 계산

for ( ; h > 0; h ← h / 3) do {

for (i ← h + 1; i ≤ n; i ← i + 1) do {

v ← a[i];

j ← i;

while (j > h and a[j-h] > v) do {

a[j] ← a[j-h];

j ← j - h;

}

a[j] ← v;

}

}

end shellSort()

--------------------------------------------------------------------

□ 파이썬 소스 코드

--------------------------------------------------------------------

def shellSort(a, n):

h = 1

while 3 \* h + 1 < n:

h = 3 \* h + 1

while h > 0:

for i in range(h+1, n+1):

v, j = a[i], i

while j > h and a[j-h] > v:

a[j] = a[j-h]

j -= h

a[j] = v

h = int(h/3)

--------------------------------------------------------------------