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CPSC 335

Assignment 1 – Algorithms

Pseudocode – Lawnmower

int main()

{

vector list

int numofdiscs, numofswaps

cout << ask for number of discs to populate the list

cin >> numofdiscs

if numofdiscs > 0

for i < numofdiscs

list push\_back ‘d’

list push\_back ‘l’

else

cerr << not enough discs to populate a list correctly

display(list)

numofswaps = lawnmower(list)

display(list)

cout << display num of swaps

}

void display(list)

{

for i in list.size

cout << list[i]

}

int lawnmower(list)

{

int numofswaps = 0

for i =0 in list.size/2

if i%2 is 0

for j = i in list.size -1

if list[j] is ‘d’ and list[j+1] is ‘l’

swap(list[j], list[j+1]

numofswaps++

else

for j = list.size-(1+i) > 0

if list[j] is ‘d’ and list[j-1] is ‘l’

swap(list[j], list[j-1])

numofswaps++

return numofswaps

}