# Øving 1 – Tdat2005 algdat

**1-2 Kompleksitet**

|  |  |
| --- | --- |
| *public int*[] mostProfitable(*int*[] stockChange){  *int* buyDay=0;  *int* sellingDay=1;  *int* profit = 0;  *int* difference =0;   *for* (*int* i = 0; i<stockChange.length; i++){  *if* (i<8){  difference= stockChange[i] +stockChange[i+1];  }  *for* (*int* j= i+2; j<stockChange.length; j++){  *if* (profit<difference){  buyDay=i;  sellingDay=j;  profit=difference;  }  difference=difference+stockChange[j];  }  }  *int*[] bestProfit={buyDay,sellingDay,profit};  *return* bestProfit; } |  |
| N  N |
| N^2  n |
|  |
|  |
| Kompleksitet = n^2  🡪 begrenset av θ(n^2) |

**1-3 Kjøretid**

|  |  |
| --- | --- |
| **N** | **Tid(ms)** |
| 100 | 0.0028 -0.004 (flest på ca 0.0028) |
| 1000 | 0.28-0.4 |
| 10000 | 28-64 |
| 100000 | 2100-80 (flest på ca 7000-7400) |