```cpp
std::vector<int> kursforandring;

int endring = 0;
int mindag = 0;
int maxdag = 0;
int kursdiff = 0;

/**
 * Algorithm for retrieving the optimal days to buy and sell in a given int list.
 * Each
 */
void algoritmeOppgave1(int n) {
  for (int i = 0; i < n; ++i) {
    endring = kursforandring[i];
    for (int j = i + 1; j < n; ++j) {
      endring += kursforandring[j];
      if (kursdiff < endring) {
        kursdiff = endring;
        mindag = i;
        maxdag = j + 1;
      }
    }
  }
}
```

4

0 | $1+2n$ | $2n$ | $\frac{1}{2}n+2n^2$ | $3n^2$ | n | n | n | $2n$

$$4 + 1+2n + \frac{1}{2}n + 2n^2 + 3n^2 + n + n + n + 2n$$

$$5n^2 + 7.5n + 5 = f(n)$$

Øvre grense $O(n)$

$f(n) \in O(g(n))$ hvis

$$\exists\ c, n_0 \mid 0 \leq f(n) \leq c \cdot g(n)\ \forall\ n \geq n_0$$

Velger $c = 100$

$$0 \leq 5n^2 + 7.5n + 5 \leq 20n^2 \quad | : n^2$$

$$0 \leq 5 + \frac{7.5}{n} + \frac{5}{n^2} \leq 20$$

Velger $n_0 = 1$

$$0 \leq 5 + 7.5 + 5 \leq 20$$

$$0 \leq 17.5 \leq 20 \quad \checkmark$$