

Esercizio 2

Si consideri il seguente programma.

```
#include<iostream>
using std::cout;

class It {
    friend class C;
public:
    bool operator<(It i) {return index < i.index;}
    It operator++(int) { It t = *this; index++; return t; }
    It operator+(int k) {index = index + k; return *this; }
private:
    int index;
};

class C {
public:
    C(int k) {
        if (k>0) {dim=k; p = new int[k];}

        for(int i=0; i<k; i++) *(p+i)=i;
    }
    It begin() { It t; t.index = 0; return t; }
    It end() { It t; t.index = dim; return t; }
    int& operator[](It i) {return *(p + i.index);}
private:
    int* p;
    int dim;
};

main() {
    C c1(4), c2(8);
    for(It i = c1.begin(); i < c1.end(); i++) cout << c1[i] << ' ';
    cout << "UNO\n";
    It i = c2.begin();
    for(int n=0; i < c2.end(); ++n, i = i+n) cout << c2[i] << ' ';
    cout << "DUE\n";
}
```