```
// STL VECTOR
INPUT:
10 20 30 40 50 -9 1 3 4 -9
OUTPUT:
5 2
30.00 35.00

class Vektor {
   vector<int> V;
   public:
      void insert(int p) { V.push_back(p); }
      void delete(int n) { V.erase(V.begin()+n-1); }
      int getN() { return V.size(); }
      double getAverage() {
         int sum=0;
         for(int i=0; i<V.size(); i++) sum+=V[i];
         if (V.size()) return (double)sum/(double)V.size();
         else return -9.99;
      }
};
int main() {
   Vektor obj;
   int x;
   cin >> x;
   while (x!=-9) {
      obj.insert(x);
      cin >> x;
   }
   int nAwal=obj.getN();
   double rataAwal=obj.getAverage();

   cin >> x; int c=0;
   while (x!=-9) {
      obj.delete(x-(c++));
      cin >> x;
   }
   int nAkhir=obj.getN();
   double rataAkhir=obj.getAverage();

   cout << nAwal << " " << nAkhir << endl;
   cout << fixed << setprecision(2)
        << rataAwal << " " << rataAkhir << endl;
```

```
43
44 }
45
46
47 // SOAL POLIGON
48 INPUT:
49 5
50 -1.5 2.67
51 0 2.5
52 3.45 0
53 2.512 -2.5
54 -0.25 -1.58
55 OUTPUT:
56 [-1.50,2.67]-[-0.25,-1.58]
57 15.78
58
59 class myPolygon {
60    vector<double> x, y;
61    public:
62       void insert(double px, double py) {
63          x.push_back(px); y.push_back(py); }
64       void printAwal() {
65          cout << fixed << setprecision(2)
66               << "[" << x[0] << "," << y[0] << "]" << endl;
 … }
67       void printAkhir() {
68          int n=x.size()-1;
69          cout << fixed << setprecision(2)
70               << "[" << x[n] << "," << y[n] << "]" << endl;
 … }
71       double keliling() {
72          double kel=0.0;
73          int n=x.size();
74          for (int i=0; i<n; i++) {
75             double jarak=sqrt((x[i]-x[(i+1)%n])*
76                (x[i]-x[(i+1)%n])+
77                (y[i]-y[(i+1)%n])*(y[i]-y[(i+1)%n]));
78             kel += jarak;
79          }
80          return kel;
81       }
82 };
```

```
int main() {
   myPoligon p;
   int n; double x,y;
   cin >> n;
   while (--n) {
      cin >> x >> y;
      p.insert(x,y);
   }
   p.printAwal(); cout << "-"; p.printAkhir(); cout << endl;
   cout << fixed << setprecision(2) << p.keliling() << endl;
}

// KASUS CONTOH UAS
Buat program untuk mengelola bilangan pecahan a b/c.
…Bilangan pecahan ini ditampilkan selalu dalam bentuk yang
…paling sederhana, dan dapat dilakukan pengolahan aritmatika
…+, -, *, dan /. Contoh:

Pecahan p, q;
p.setNilai(2,4,8);  // membuat pecahan 2 4/8
p.print()           // dicetak 2 1/2
p+5                 // pecahan p ditambah 5, menjadi 7 1/2
q.setNilai(2,8,3);  // a=4, b=2, c=3

class Pecahan {
   int a,b,c;
   int fpb(int p, int q) {
      if (q==0) return p;
      else return fpb(q, p%q);
   }
   void sederhanakan() {
      a+=b/c; b%=c;
      int d=fpb(b,c); b/=d; c/=d;
   }
   public:
      void setNilai(int pa, int pb, int pc) {
         a=pa; b=pb; c=pc;
         sederhanakan();
      }
}
```