

Point

```
point::point(double x, double y, double z, double w){
    p[0] = x;
    p[1] = y;
    p[2] = z;
    p[3] = w;
}

bool IsZero(const point &p){
    if( IsEqual(p[0], 0) && IsEqual(p[1], 0) && IsEqual(p[2], 0) ){
        return true;
    }

    return false;
}

bool IsEqual(const point &p, const point &q){
    if( IsEqual(p[0], q[0]) && IsEqual(p[1], q[1]) && IsEqual(p[2], q[2]) ){
        return true;
    }
    return false;
}

bool IsNotEqual(const point &p, const point &q) {
    return !IsEqual(p, q);
}

double Distance(const point &p, const point &q){
    return sqrt( ((p[0]-q[0])*(p[0]-q[0])) + ((p[1]-q[1])*(p[1]-q[1])) + ((p[2]-
        q[2])*(p[2]-q[2])));
}

istream &operator>>(istream &input, point &p){
    input >> p[0] >> p[1] >> p[2];
    return input;
}

ostream &operator<<(ostream &output, const point &p){
    output << p[0] << " " << p[1] << " " << p[2];
    return output;
}
```