Class 10 Problems

Problem 1

Implement a constructor to build a GeoPoint object. This object must have three properties: latitude, longitude and altitude. In addition, implement three methods to access to the properties (getters) and three more to change the value (setters).

The next code must work:

```
var p1 = new GeoPoint(39.97, -0.05, 30);
var p2 = new GeoPoint(41.3825, 2.176944, 9);

alert("Latitude:  " + p1.GetLatitude() +
      "Longitude: " + p1.GetLongitude() +
      "Altitude:  " + p1.GetAltitude());

alert("Latitude:  " + p2.GetLatitude() +
      "Longitude: " + p2.GetLongitude() +
      "Altitude:  " + p2.GetAltitude());

p1.SetLatitude(40.055278);
p1.SetLongitude(0.064167);
p1.SetAltitude(15.0);

alert("Latitude:  " + p1.GetLatitude() +
      "Longitude: " + p1.GetLongitude() +
      "Altitude:  " + p1.GetAltitude());
```

Problem 2

Add a method to estimate the distance between two GeoPoint instances. Look at Internet how to estimate the distance between two points in the Earth.

The next code must work:

```
var p1 = new GeoPoint(39.97, -0.05, 30);
var p2 = new GeoPoint(41.3825, 2.176944, 9);

alert("The distance between the point [" +
      p1.GetLatitude() + ',' + p1.GetLongitude() + '] and [' +
       p2.GetLatitude() + ',' + p2.GetLongitude() + '] is ' +
       p1.EstimateDistance(p2));
```