QUESTION #1

```
#include <iostream>
#include <cmath>
using namespace std;

int main() {
   double x1, y1, x2, y2;

   //Get values from user.
   cout<<"Enter the coordinates of the first point (x1 y1): "<<endl;
   cin>>x1;
   cin>>y1;

   cout<<"Enter the coordinates of the second point (x2 y2): ";
   cin>>x2;
   cin>>y2;

   //Use distance formula
   double distance = sqrt(pow(x2 - x1, 2) + pow(y2 - y1, 2));

   cout<<"The distance between the two points is: "<<distance<<endl;

   return 0;
}
```

Question #2:

```
#include <iostream>
using namespace std;

int main() {
   double lengthIncm;

   //Taking lenght
   cout<<"Enter the length in cm: "<<endl;
   cin>>lengthIncm;

   // Convertion
   double lengthInmeters = lengthIncm / 100.0;
   double lengthInKilometers = lengthIncm / 100000.0;

   cout<<"Length in meters: "<<lengthInmeters<<" m"<<endl;
   cout<<"Length in kilometers: "<<lengthInKilometers<<" km"<<endl;

   return 0;
}
```

Question #3:

```
#include <iostream>
using namespace std;

int main() {
   double a,b;

   //User gives values of a and b
   cout<<"Enter the value of 'a': "<<endl;
   cin>>a;

   cout<<"Enter the value of 'b': "<<endl;
   cin>>b;

   //alculaton
   double result=a*a + 2*a*b + b*b;

   cout<<"The result of the polynomial a^2 + 2ab + b^2 is: "<<result<<endl;
   return 0;
}
```

Question #4:

```
#include <iostream>
using namespace std;

int main(){
   double Fahrenheit,Celsius;

   //Take value of temp
   cout<<"Enter temperature in Fahrenheit: ";
   cin>>Fahrenheit;

   //Conversion
   Celsius = (Fahrenheit-32)* 5/9;

   cout<<"Temperature in Celsius: "<<Celsius<<"°C"<<endl;

   return 0;
}
```