Code:

```
#include <bits/stdc++.h>
#include <cstdio>

using namespace std;

#define GNUPLOT "C:\\gnuplot\\bin\\gnuplot -persist"

int main()
{
    FILE* file = _popen(GNUPLOT,"w");
    double x[] = {0,4,4,4,11,5,13,15,17,16,12,20,15,18,17};
    double y[] = {1,5,7,3,8,9,8,14,9,14,13,8,11,9,4};
    int m=15,n=2;
    double coef[]={0.4513, 1.5926, -0.0621};// found using least squares algorithm
    if (file!=nullptr) {
        fprintf(file,"%s%f%s%f%s%f%s\n","f(x) = ",coef[0],"+",coef[1],"*x",coef[2],"*(x**2)");
        fprintf(file, "%s\n","plot f(x),'-' using 1:2 title 'points'");
        for (int i=0;i<m;i++) {
            fprintf(file,"%f\t%f\n",x[i],y[i]);
        }
        fprintf(file,"%s\n","e");
        fflush(file);
        _pclose(file);
    }
    return 0;
}
```

Plot: