

```
1  #include <iostream>
2  #include "equation.h"
3  #include <fstream>
4  using namespace std;
5
6
7
8  int main() {
9
10     ifstream firstequation;
11     ifstream secondequation;
12     ifstream thirdequation;
13     ifstream fourthequation;
14     ifstream fifthequation;
15     ifstream sixthequation;
16     ofstream outputfile;
17     equation one[4];
18     equation two[6];
19     equation three[4];
20     equation four[5];
21     equation five[7];
22     equation six[5];
23     nodetype n;
24
25     outputfile.open(_Filename: "Polynomial Assignment");
26     firstequation.open(_Filename: "firstequation.txt");
27     secondequation.open(_Filename: "secondequation.txt");
28     thirdequation.open(_Filename: "thirdequation.txt");
29     fourthequation.open(_Filename: "fourthequation.txt");
30     fifthequation.open(_Filename: "fifthequation.txt");
31     sixthequation.open(_Filename: "sixthequation.txt");
32
33     if (!firstequation.is_open())
34     {
35         cout << "The input file did not open " << endl;
36         return 0;
37     }
38     if (!secondequation.is_open())
39     {
40         cout << "The input file did not open " << endl;
41         return 0;
42     }
43     if (!thirdequation.is_open())
44     {
45         cout << "The input file did not open " << endl;
46         return 0;
47     }
48     if (!fourthequation.is_open())
49     {
```

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50     cout << "The input file did not open " << endl;
51     return 0;
52 }
53 if (!fifthequation.is_open())
54 {
55     cout << "The input file did not open " << endl;
56     return 0;
57 }
58 if (!sixthequation.is_open())
59 {
60     cout << "The input file did not open " << endl;
61     return 0;
62 }
63
64 for (int i = 0; i < 4; i++)
65 {
66     firstequation >> n.coeff;
67     firstequation >> n.exp;
68     one[i].insertitem(n);
69 }
70
71 for (int i = 0; i < 6; i++)
72 {
73     secondequation >> n.coeff;
74     secondequation >> n.exp;
75     two[i].insertitem(n);
76 }
77
78 for (int i = 0; i < 4; i++)
79 {
80     thirdequation >> n.coeff;
81     thirdequation >> n.exp;
82     three[i].insertitem(n);
83 }
84
85 for (int i = 0; i < 5; i++)
86 {
87     fourthequation >> n.coeff;
88     fourthequation >> n.exp;
89     four[i].insertitem(n);
90 }
91
92 for (int i = 0; i < 7; i++)
93 {
94     fifthequation >> n.coeff;
95     fifthequation >> n.exp;
96     five[i].insertitem(n);
97 }
98
```

```
99     for (int i = 0; i < 5; i++)
100     {
101         sixthequation >> n.coeff;
102         sixthequation >> n.exp;
103         six[i].insertitem(n);
104     }
105
106
107
108     outputfile << "Equation one:  ";
109
110     for (int i = 0; i < 4; i++)
111     {
112         one[i].printlist(&outputfile);
113     }
114
115     outputfile << endl;
116
117     outputfile << "Equation two:  ";
118
119     for (int i = 0; i < 6; i++)
120     {
121         two[i].printlist(&outputfile);
122     }
123
124     outputfile << endl;
125
126     outputfile << "Equation three:  ";
127
128     for (int i = 0; i < 4; i++)
129     {
130         three[i].printlist(&outputfile);
131     }
132
133     outputfile << endl;
134
135     outputfile << "Equation four:  ";
136
137     for (int i = 0; i < 5; i++)
138     {
139         four[i].printlist(&outputfile);
140     }
141
142     outputfile << endl;
143
144     outputfile << "Equation five:  ";
145
146     for (int i = 0; i < 7; i++)
147     {
```

```
148         five[i].printlist(&outputfile);
149     }
150
151     outputfile << endl;
152
153     outputfile << "Equation six:  ";
154
155     for (int i = 0; i < 5; i++)
156     {
157         six[i].printlist(&outputfile);
158     }
159
160
161     return 0;
162 }
```