

```
1 #ifndef _WIN32
2     #pragma warning(disable:4996)
3     #include <conio.h>
4     #include <direct.h>
5 #elif (defined __linux__) || (defined _AIX)
6     #include <stdlib.h>
7     #include <sys/types.h>
8     #include <sys/stat.h>
9     #include <unistd.h>
10    typedef char _TCHAR;
11    #define _tmain main
12 #endif
13
14 #include <stdio.h>
15 #include <iostream>
16 #include <iomanip>
17 using namespace std;
18
19 #include "MaticaObdlznikova.h"
20 #include "MaticaStvorcova.h"
21 //-----
22 TMaticaStvorcova::TMaticaStvorcova() {
23 }
24 //-----
25 TMaticaStvorcova::TMaticaStvorcova(TMaticaStvorcova& X)
26 {
27     PocetRiadkov = X.PocetRiadkov;
28     PocetStlpcov = X.PocetStlpcov;
29     for (unsigned i=0;i<PocetRiadkov;i++)
30         for (unsigned j=0;j<PocetStlpcov;j++)
31             Matica[i][j] = X.Matica[i][j];
32 }
33 //-----
34 TMaticaStvorcova::~TMaticaStvorcova()
35 {
36 }
37 //-----
38 TMaticaStvorcova& TMaticaStvorcova::operator=(const TMaticaStvorcova& X)
39 {
40     if (this == &X) return *this;
41
42     PocetRiadkov = X.PocetRiadkov;
43     PocetStlpcov = X.PocetStlpcov;
44     for (unsigned i=0;i<PocetRiadkov;i++)
45         for (unsigned j=0;j<PocetStlpcov;j++)
46             Matica[i][j] = X.Matica[i][j];
47
48     return *this;
49 }
50 //-----
51 TMaticaStvorcova& TMaticaStvorcova::operator=(const TMaticaObdlznikova& X)
52 {
53     if (this == &X) return *this;
```

```
54
55     my_class xx;
56
57     if (X.getPocetRiadkov() != X.getPocetStlpcov()) {
58         cout << "\nTato obdlznikova matica sa neda previest na stvorcovu!";
59         xx.my_getch();
60         exit(1);
61     }
62
63     PocetRiadkov = X.getPocetRiadkov();
64     PocetStlpcov = X.getPocetStlpcov();
65     for (unsigned i = 0; i<PocetRiadkov; i++)
66         for (unsigned j = 0; j<PocetStlpcov; j++)
67             Matica[i][j] = X.getPrvokMatice(i, j);
68
69     return *this;
70 }
71 //-----
72 TMaticaStvorcova TMaticaStvorcova::UmocniMaticu(unsigned k)
73 {
74     TMaticaStvorcova Y, PomMatica0, PomMatica;
75     my_class xx;
76
77     if (PocetStlpcov != PocetRiadkov) {
78         cout << "\n Matica sa neda umocnit!";
79         xx.my_getch();
80         exit(1);
81     }
82     Y.PocetRiadkov = Y.PocetStlpcov = PocetRiadkov;
83
84     switch (k) {
85     case 0:
86         for (unsigned i = 0; i<PocetRiadkov; i++) {
87             for (unsigned j = 0; j<PocetRiadkov; j++)
88                 Y.Matica[i][j] = 0;
89             Y.Matica[i][i] = 1;
90         }
91         break;
92     case 1:
93         Y = *this;
94         break;
95     default:
96         PomMatica0 = PomMatica = *this;
97         k--;
98         while (k-->0) {
99             Y = PomMatica * PomMatica0;
100             PomMatica = Y;
101         }
102     }
103
104     return Y;
105 }
106 //-----
```