Soluţii

main.cpp

```
1   #include <iostream>
2   #include<fstream>
3
4   using namespace std;
5
6   int main()
7   {
8       fstream f("numere.in");
9       int a,b,c;
10      f>>a>>b>>c;
11      f.close();
12      ofstream g("suma.out");
13      g<<a+b+c;
14      g.close();
15      ofstream h("produs.out");
16      h<<a*b*c;
17      h.close();
18      ofstream i("patrate.out");
19      i<<a*a+b*b+c*c;
20      i.close();
21      return 0;
22  }
23
```

numere.in

```
1   45
2   21
3   3
4
```

suma.out

```
1   69
```

produs.out

```
1   2835
```

patrate.out

```
1   2475
```

Figură 1 Tema 05

main.cpp

```cpp
#include <iostream>
#include<fstream>

using namespace std;

int main()
{
    ifstream f("numere.in");
    int a,b,c,d;
    f>>a>>b>>c>>d;
    f.close();
    ofstream g("par.out");
    ofstream h("impar.out");
    if(a%2==0)g<<a<<' '; else h<<a<<' ';
    if(b%2==0)g<<b<<' '; else h<<b<<' ';
    if(c%2==0)g<<c<<' '; else h<<c<<' ';
    if(d%2==0)g<<d<<' '; else h<<d<<' ';
    g.close();
    h.close();
    return 0;
}
```

numere.in

```
45
21
3
8
```

impar.out

```
45 21 3
```

par.out

```
8
```

Figură 2Tema 06

main.cpp

```cpp
#include <iostream>
#include<fstream>

using namespace std;

int main()
{
    ifstream f("numere.in");
    int a1,a2,a3,a4,a5,a6;
    f>>a1>>a2>>a3>>a4>>a5>>a6;
    f.close();
    ofstream g("ocifra.out");
    ofstream h("douacifre.out");
    ofstream i("treicifre.out");
    if(a1<10)g<<a1<<endl; else if (a1<100)h<<a1<<endl; else if(a1<1000)i<<a1<<endl;
    if(a2<10)g<<a2<<endl; else if (a2<100)h<<a2<<endl; else if(a2<1000)i<<a2<<endl;
    if(a3<10)g<<a3<<endl; else if (a3<100)h<<a3<<endl; else if(a3<1000)i<<a3<<endl;
    if(a4<10)g<<a4<<endl; else if (a4<100)h<<a4<<endl; else if(a4<1000)i<<a4<<endl;
    if(a5<10)g<<a5<<endl; else if (a5<100)h<<a5<<endl; else if(a5<1000)i<<a5<<endl;
    if(a6<10)g<<a6<<endl; else if (a6<100)h<<a6<<endl; else if(a6<1000)i<<a6<<endl;
    g.close();
    h.close();
    i.close();
    return 0;
}
```

numere.in

```
45
2100
375
82
528
9
```

douacifre.out

```
45
82
```

ocifra.out

```
9
```

treicifre.out

```
375
528
```

Figură 3 Tema 07

main.cpp

```cpp
#include <iostream>
#include<fstream>

using namespace std;

int main()
{
    ifstream f("numere.in");
    int a1,a2,a3,a4,a5,a6;
    f>>a1>>a2>>a3>>a4>>a5>>a6;
    f.close();
    ofstream g("divi6.out");
    ofstream h("divi7.out");
    ofstream i("divi8.out");
    if(a1%6==0)g<<a1<<endl; if (a1%7==0)h<<a1<<endl; if(a1%8==0)i<<a1<<endl;
    if(a2%6==0)g<<a2<<endl; if (a2%7==0)h<<a2<<endl; if(a2%8==0)i<<a2<<endl;
    if(a3%6==0)g<<a3<<endl; if (a3%7==0)h<<a3<<endl; if(a3%8==0)i<<a3<<endl;
    if(a4%6==0)g<<a4<<endl; if (a4%7==0)h<<a4<<endl; if(a4%8==0)i<<a4<<endl;
    if(a5%6==0)g<<a5<<endl; if (a5%7==0)h<<a5<<endl; if(a5%8==0)i<<a5<<endl;
    if(a6%6==0)g<<a6<<endl; if (a6%7==0)h<<a6<<endl; if(a6%8==0)i<<a6<<endl;
    g.close();
    h.close();
    i.close();
    return 0;
}
```

numere.in

```
7 56 9 707 708 709
```

divi7.out

```
7
56
707
```

divi6.out

```
708
```

divi8.out

```
56
```

Figură 4 Tema 08

main.cpp

```cpp
#include <iostream>
#include<fstream>

using namespace std;

int main()
{
	fstream f("numere.in");
	int a,b,c;
	f>>a>>b>>c;
	f.close();
	ofstream g("suma.out");
	g<<a+b+c;
	g.close();
	ofstream h("produs.out");
	h<<a*b*c;
	h.close();
	ofstream i("patrate.out");
	i<<a*a+b*b+c*c;
	i.close();
	ofstream j("cuburi.out");
	j<<a*a*a+b*b*b+c*c*c;
	j.close();
	return 0;
}
```

numere.in

```
17 18 19
```

suma.out

```
54
```

patrate.out

```
974
```

cuburi.out

```
17604
```

produs.out

```
5814
```

Figură 5 Tema 09

main.cpp

```cpp
#include <iostream>
#include<fstream>

using namespace std;

int main()
{
    ifstream z("numere.in");
    int a,b,c,d,e,f;
    z>>a>>b>>c>>d>>e>>f;
    z.close();
    ofstream g("3k.out");
    ofstream h("3kplus1.out");
    ofstream i("3kplus2.out");
    if(a%3==0)g<<a<<' '; else if(a%3==1)h<<a<<' ';else i<<a<<' ';
    if(b%3==0)g<<b<<' '; else if(b%3==1)h<<b<<' ';else i<<b<<' ';
    if(c%3==0)g<<c<<' '; else if(c%3==1)h<<c<<' ';else i<<c<<' ';
    if(d%3==0)g<<d<<' '; else if(d%3==1)h<<d<<' ';else i<<d<<' ';
    if(e%3==0)g<<e<<' '; else if(e%3==1)h<<e<<' ';else i<<e<<' ';
    if(f%3==0)g<<f<<' '; else if(f%3==1)h<<f<<' ';else i<<f<<' ';
    g.close();
    h.close();
    i.close();
    return 0;
}
```

numere.in

```
45
21
3
8
5431
543
```

3k.out

```
45 21 3 543
```

3kplus1.out

```
5431
```

3kplus2.out

```
8
```

Figură 6 Tema 10