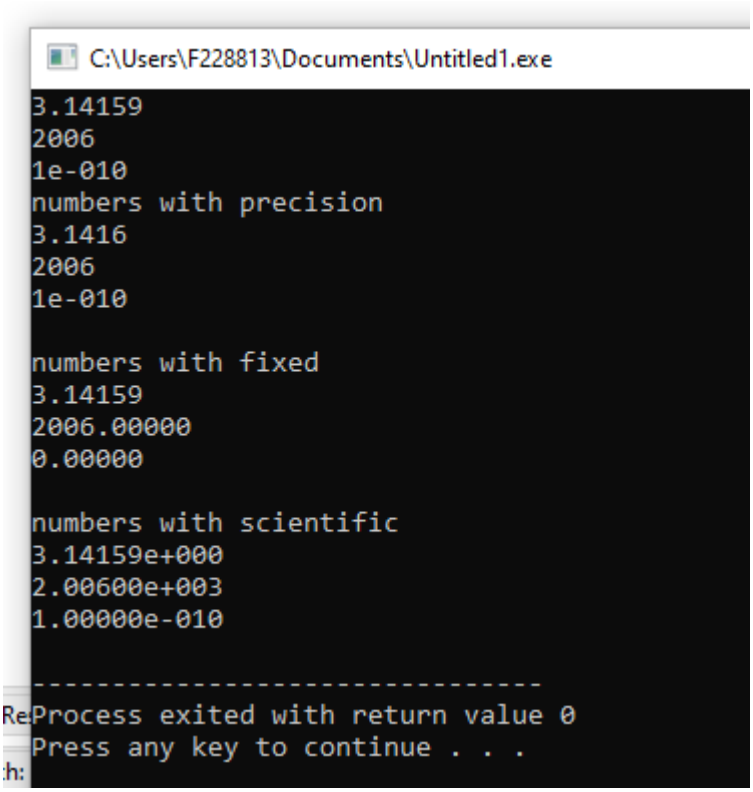
Task 2.1:

```
#include<iostream>
#include<iomanip>
using std::cout;
using std::endl;
using std::cin;
using std::setprecision;
using std::fixed;
using std::scientific;
int main()
{
	double a=3.1415926534;
	double b=2006.0;
	double c=1.0e-10;
	cout<<a<<endl;
	cout<<b<<endl;
	cout<<c<<endl;
	cout<<"numbers with precision"<<endl;
	cout<<setprecision(5)<<a<<endl;
	cout<<setprecision(5)<<b<<endl;
	cout<<setprecision(5)<<c<<endl<<endl;
	cout<<"numbers with fixed"<<endl;
	cout<<fixed;
	cout<<setprecision(5)<<a<<endl;
	cout<<setprecision(5)<<b<<endl;
	cout<<setprecision(5)<<c<<endl<<endl;
	cout<<"numbers with scientific"<<endl;
	cout<<scientific;
	cout<<setprecision(5)<<a<<endl;
```

```
    cout<<setprecision(5)<<b<<endl;
    cout<<setprecision(5)<<c<<endl;
    return0;
```

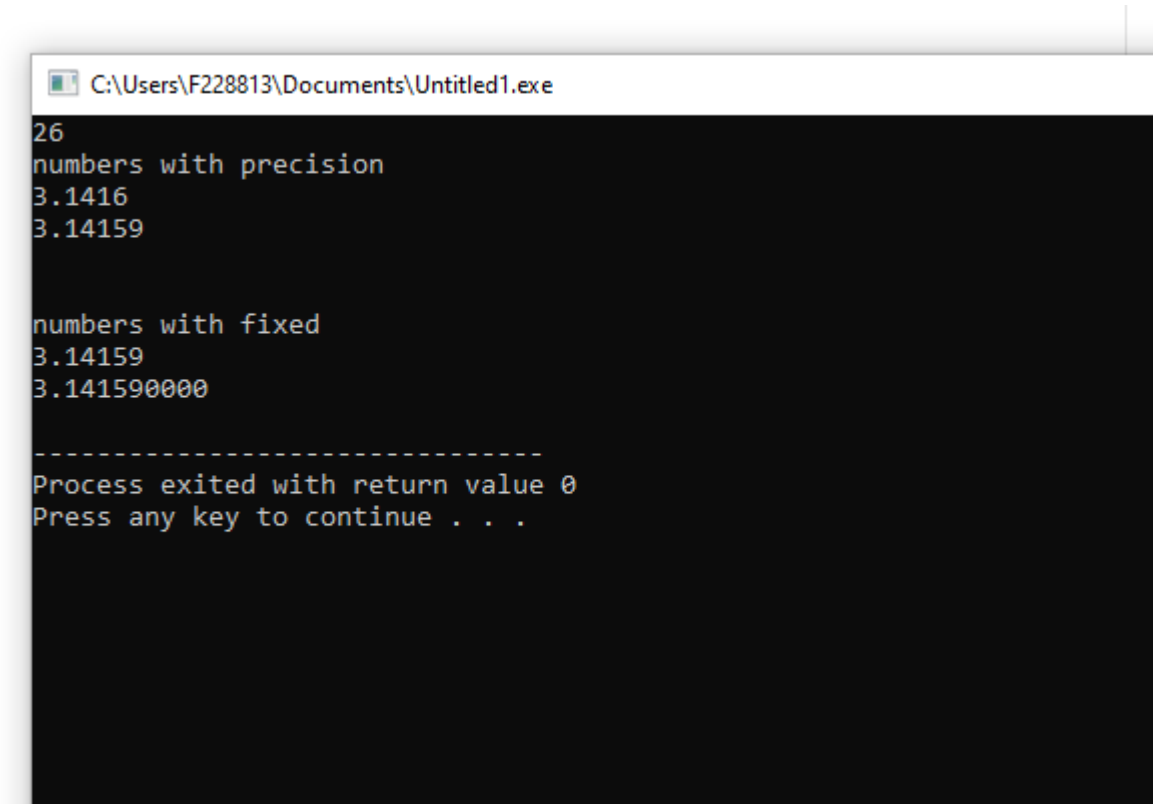
}



Task 2.2:

```
#include<iostream>
```

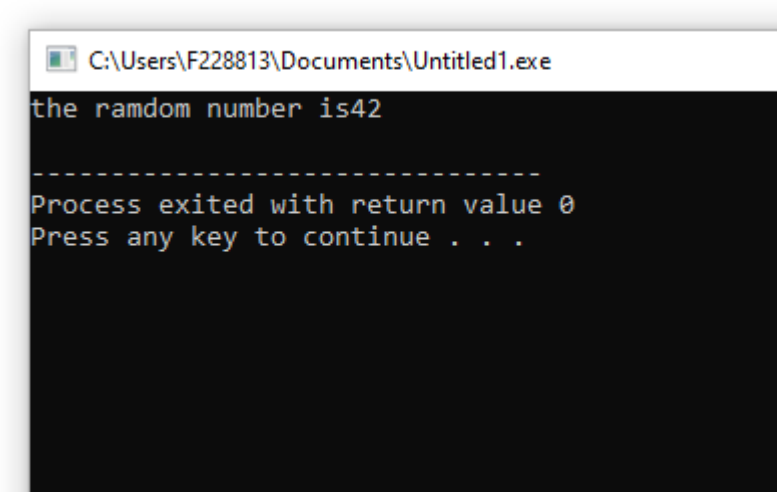
```
#include<iomanip>
using std::cout;
using std::endl;
using std::cin;
using std::setprecision;
using std::fixed;
using std::scientific;
int main()
{
	double a=3.14159,b;
	cin>>b;
	b=a;
	cout<<"numbers with precision"<<endl;
	cout<<setprecision(5)<<a<<endl;
	cout<<setprecision(9)<<a<<endl<<endl<<endl;
	cout<<"numbers with fixed"<<endl;
	cout<<fixed;
	cout<<setprecision(5)<<a<<endl;
	cout<<setprecision(9)<<a<<endl;
	return0;


}
```



Task 2.3:

```
#include<iostream>


#include<cstdlib>

using std::cout;

using std::endl;

using std::cin;


int main()
```

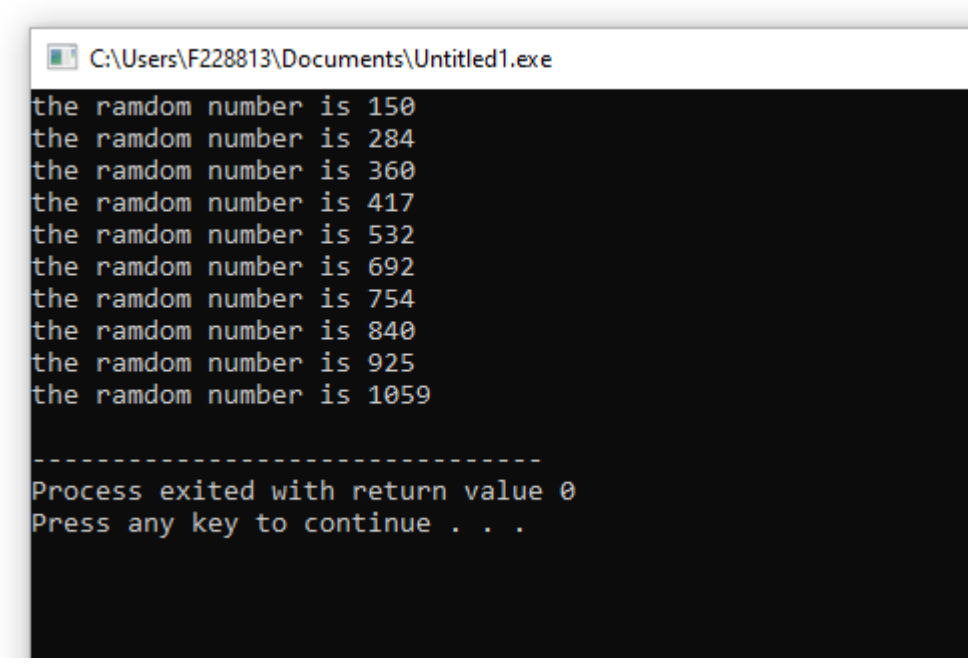
```
{

        cout<<"the ramdom number is"<<(1+(rand()%100))<<endl;

        return0;

}
```



Task 2.4:

```
#include<iostream>

#include<ctime>

#include<cstdlib>

using std::cout;

using std::endl;

using std::cin;

int main()

{
```

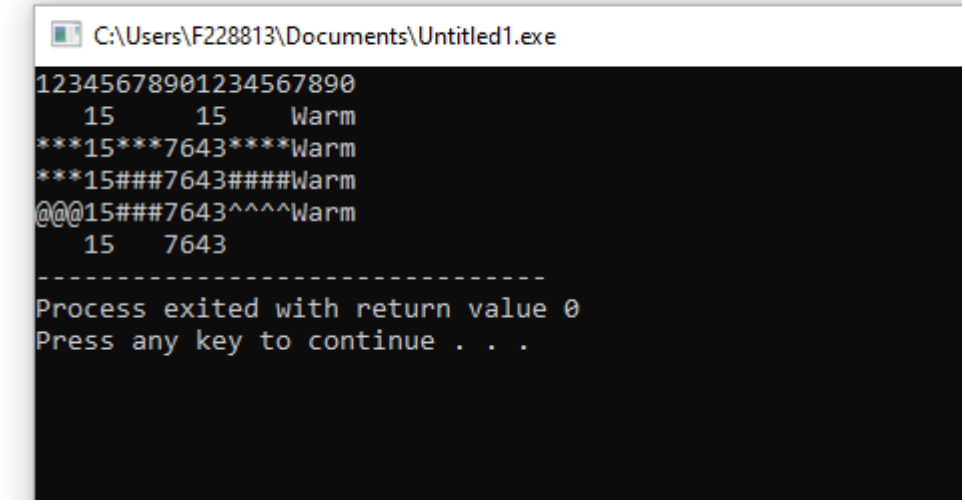
```
    srand(time(0));
    cout<<"the ramdom number is 1"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 2"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 3"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 4"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 5"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 6"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 7"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 8"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 9"<<(1+(rand()%100))<<endl;
    cout<<"the ramdom number is 10"<<(1+(rand()%100))<<endl;
    return0;
}
```



Task 2.5:

```
#include <iostream>
#include <iomanip>
using std::setfill;
using std::setw;
using std::setw;
using std::endl;

using std::cout;



int main()
{
int a = 15;
int b = 7643 ;
cout << "12345678901234567890" << endl;
cout << setw(5) << a << setw(7) << a << setw(8) <<"Warm" << endl ;
cout << setfill('*');
cout << setw(5) << a << setw(7) << b << setw(8) << "Warm" << endl ;
cout << setw(5) << a << setw(7) << setfill('#')<< b << setw(8) << "Warm" << endl ;
cout << setw(5) << setfill('@') << a<< setw(7) << setfill('#') << b<< setw(8) << setfill('^') << "Warm"<<
endl ;
cout << setfill(' ') ;
cout << setw(5) << a << setw(7) << b;
```

}


C:\Users\F228813\Documents\Untitled1.exe
12345678901234567890
15 15 Warm
157643****Warm
***15###7643####Warm
@@@15###7643^^^^Warm
15 7643

Process exited with return value 0
Press any key to continue . . .