

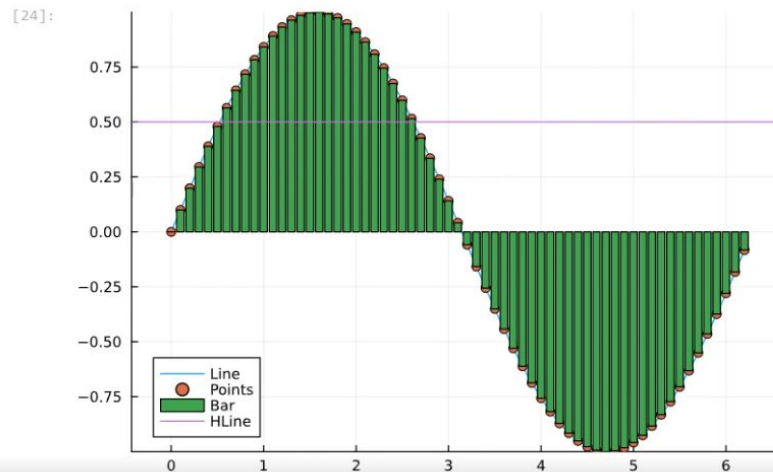


Лабораторная работа №5

по дисциплине Компьютерный практикум по статистическому анализу данных

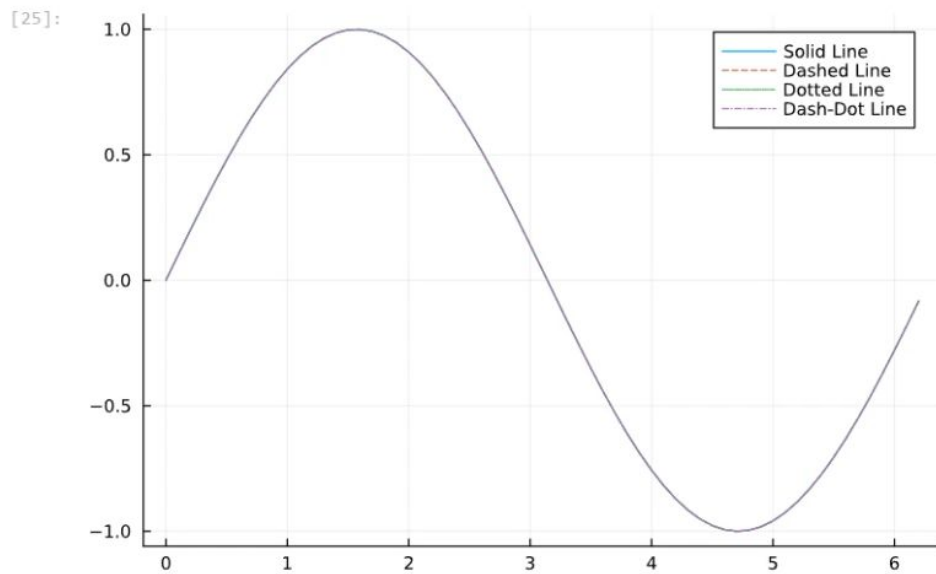
Ход работы

```
[24]: using Plots
x = 0:0.1:2π
y = sin.(x)
plot(x, y, st=:line, label="Line")
scatter!(x, y, label="Points")
bar!(x, y, label="Bar")
hline!([0.5], label="HLine")
```



Ход работы

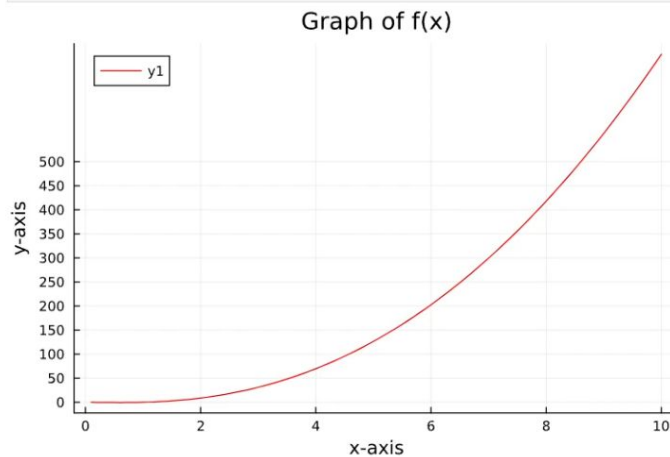
```
[25]: plot(x, y, line=:solid, label="Solid Line")  
      plot!(x, y, line=:dash, label="Dashed Line")  
      plot!(x, y, line=:dot, label="Dotted Line")  
      plot!(x, y, line=:dashdot, label="Dash-Dot Line")
```



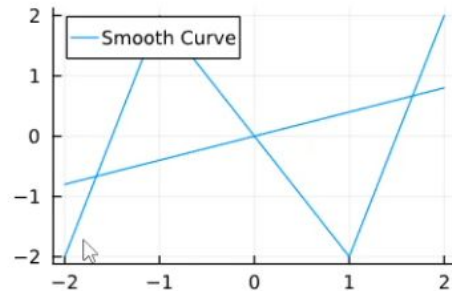
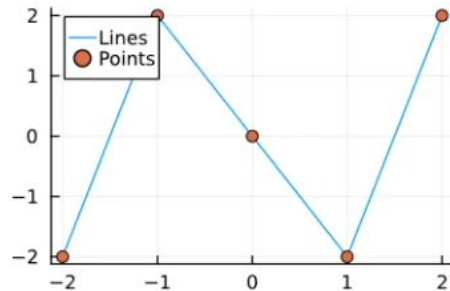
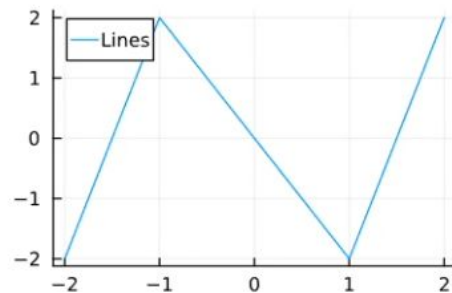
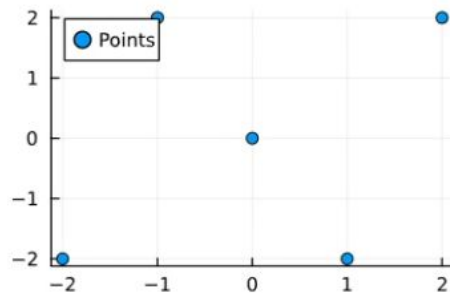
Ход работы

```
[29]: f(x) = π * x^2 * log(x)
x = 0.1:0.1:10
plot(x, f.(x), color=:red, framestyle=:green, title="Graph of f(x)", xlabel="x-axis", ylabel="y-axis")
xticks!(0:2:10)
yticks!(0:50:500)
```

[29]:

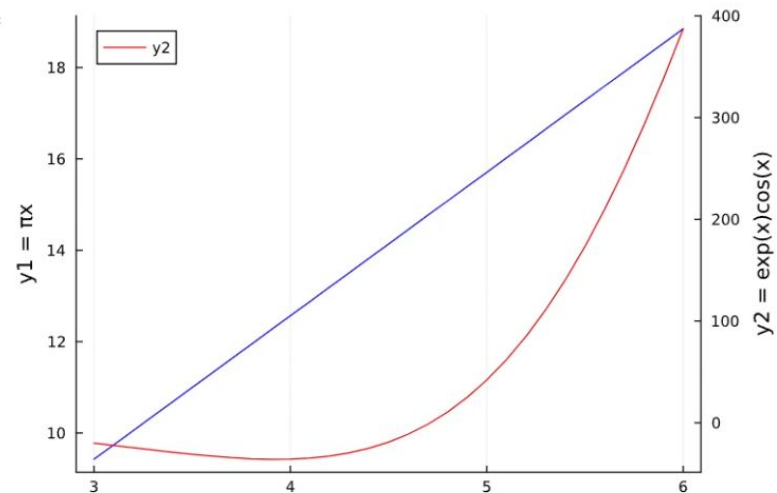


Ход работы

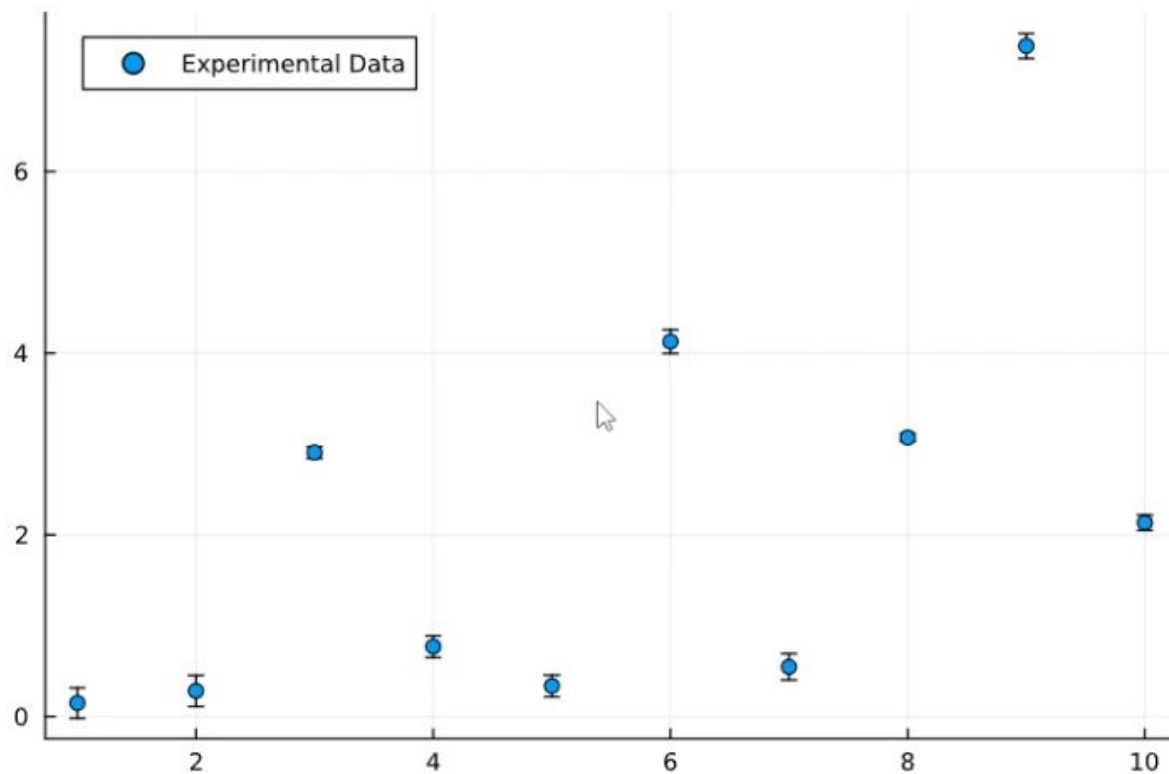


Ход работы

[31]:

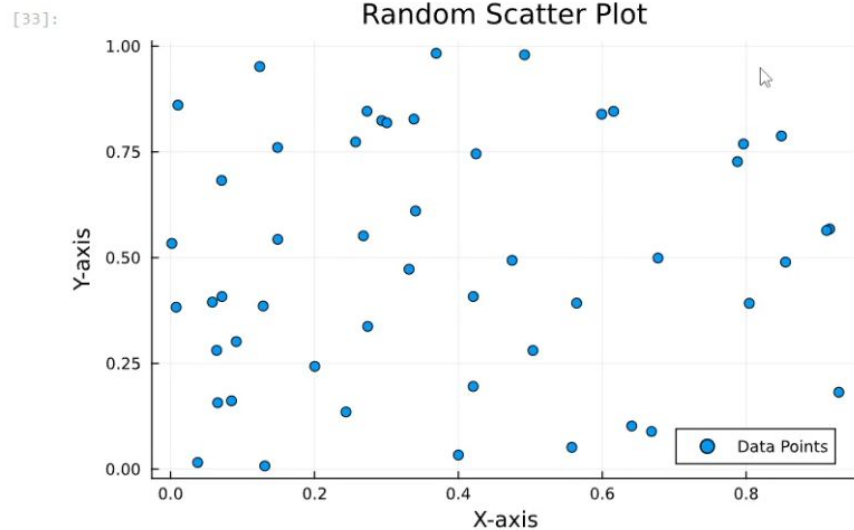


Ход работы



Ход работы

```
[33]: x = rand(50)
      y = rand(50)
      scatter(x, y, title="Random Scatter Plot", xlabel="X-axis", ylabel="Y-axis", label="Data Points")
```



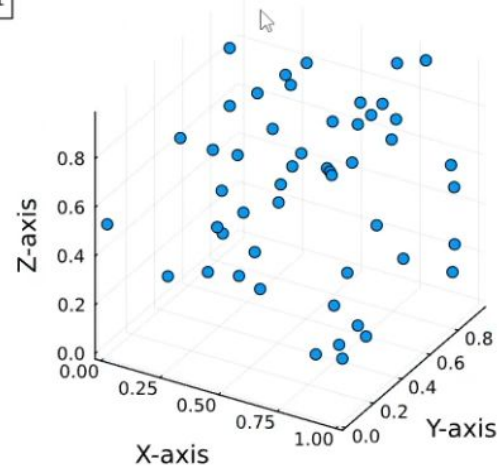
Ход работы

```
[34]: x = rand(50)
      y = rand(50)
      z = rand(50)
      scatter3d(x, y, z, title="3D Scatter Plot", xlabel="X-axis", ylabel="Y-axis", zlabel="Z-axis")
```

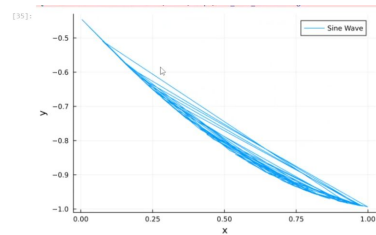
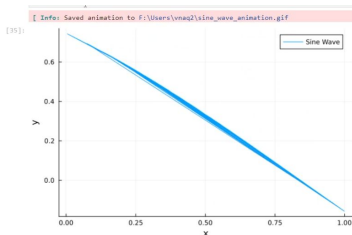
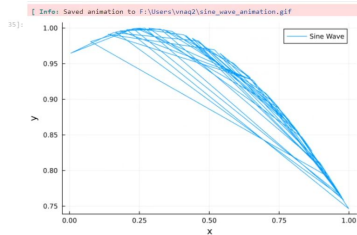
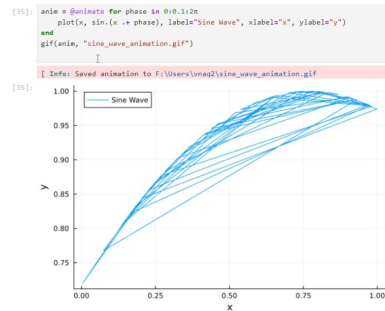
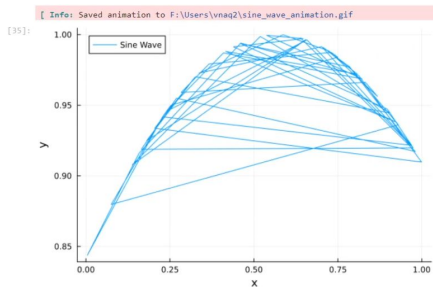
[34]:

3D Scatter Plot

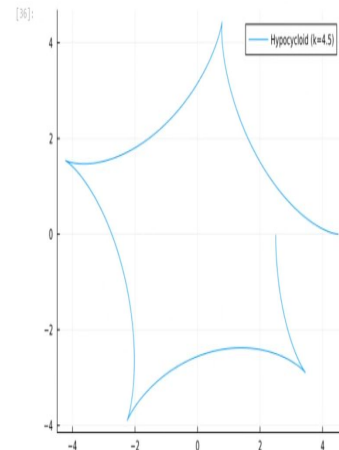
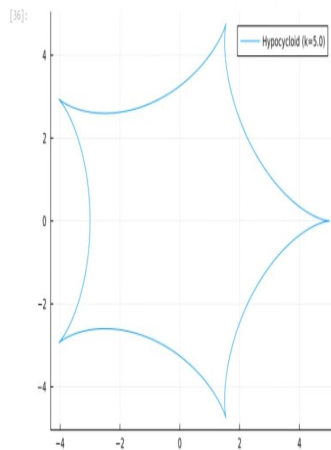
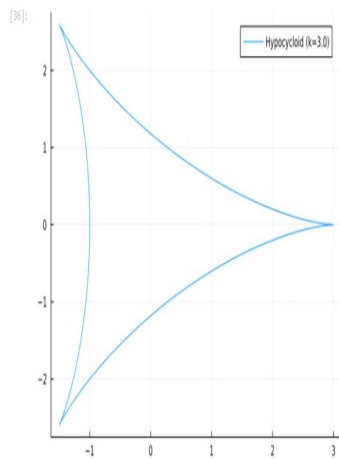
● y1



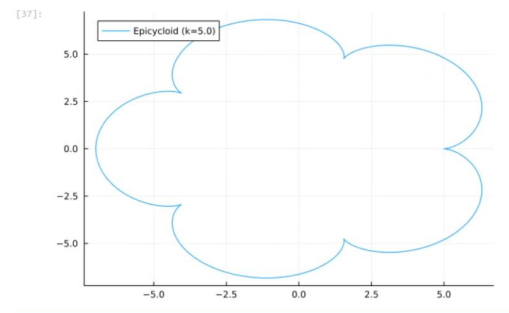
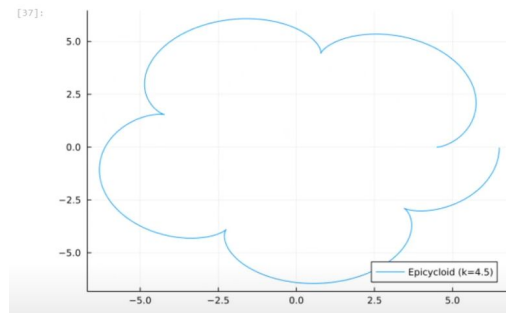
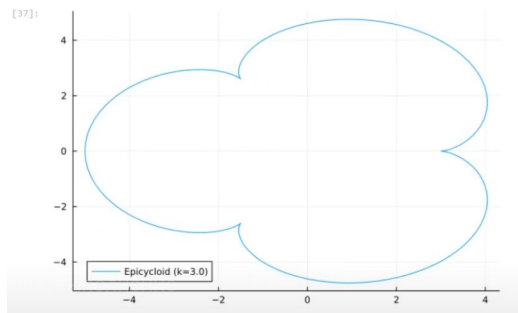
Ход работы



Ход работы



Ход работы





Вывод

Я освоил синтаксис языка **Julia** для построения графиков.