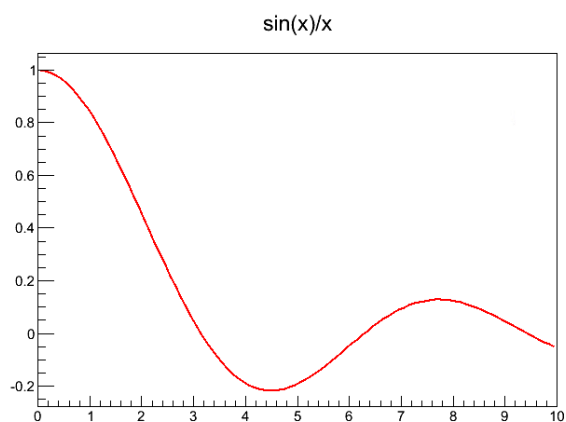


ROOT

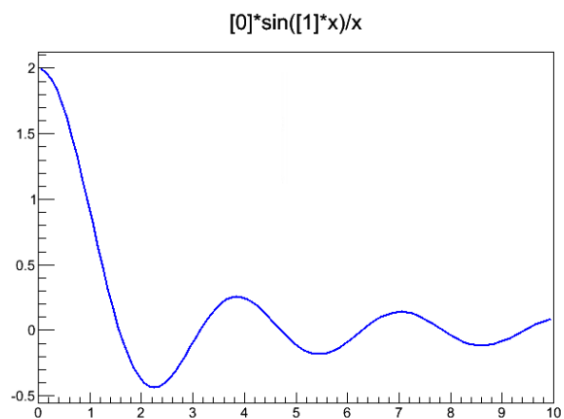
Professores: DILSON, ELIZA, SANDRO E SHEILA*Name:* TAÍS DIAS IZIDORO**EXERCICIO 1**

Solução do exercício 1 e seus gráficos. Valores de saída constam no local do código.

```
1 root[0] TF1 *f1 = new TF1("f1", "sin(x)/x", 0., 10.);
2 root[1] f1.Draw();
```



```
1 root[0] TF1 * f2 = new TF1("f2", "[0]*sin([1]*x)/x", 0.,10.);
2 root[1] f2.SetParameters(1,2);
3 root[2] f2.SetLineColor(4);
4 root[3] f2.Draw();
5 root[4] f2.Eval(1)
6 (const Double_t)9.09297426825681709e-01
7 root[5] f2.Derivative(1)
8 (const Double_t)(-1.74159109970667781e+00)
9 root[6] f2.Integral(0,3)
10 (Double_t)1.42468755128050639e+00
```



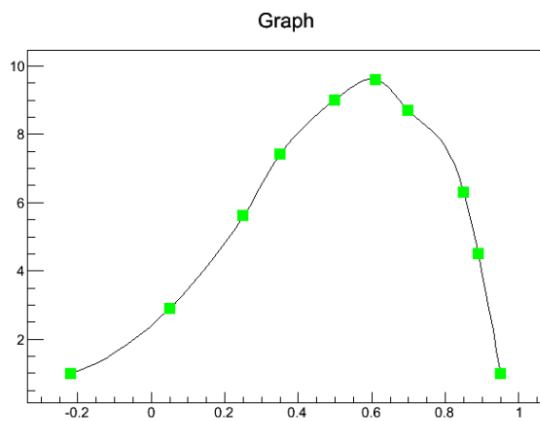
EXERCICIO 2

Solução do exercício 2 e seu gráfico.

```

1 root[0] Int_t n = 10;
2 root[1] Float_t a[n] = {-0.22, 0.05, 0.25, 0.35, 0.5, 0.61, 0.7, 0.85, 0.89, 0.95};
3 root[2] Float_t b[n] = {1, 2.9, 5.6, 7.4, 9, 9.6, 8.7, 6.3, 4.5, 1};
4 root[3] TGraph *gr = new TGraph(n, a, b);
5 root[4] gr.SetMarkerStyle(21);
6 root[5] gr.SetMarkerSize(1.5);
7 root[6] gr.SetMarkerColor(3);
8 root[7] gr.Draw("ACP");

```

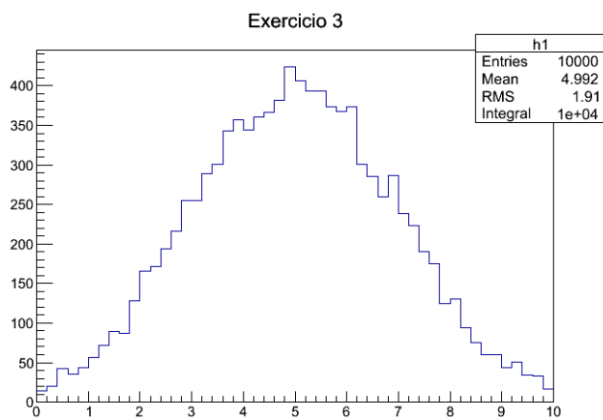
**EXERCICIO 3**

Solução do exercício 3 e seu histograma.

```

1 root[0] TF1 *mygaus = new TF1("mygaus", "TMath::Gaus(x,5,2)", 0, 6);
2 root[1] TH1F *h1 = new TH1F("h1", "Exercicio 3", 50, 0, 10);
3 root[2] h1.FillRandom("mygaus", 10000);
4 root[3] gStyle->SetOptStat(1001111);
5 root[4] h1.Draw();

```

**EXERCICIO 4**

Solução do exercício 4 e seu histograma.

```
1 root[0] new TBrowser //para ver o valor da media de ebeam
2 root[1] TFile *f1 = new TFile("tree.root");
3 root[2] TTree *mytree = (TTree *)f1.Get("tree1");
4 root[3] mytree.Draw("px:py", "ebeam < 149.8", "ebeam > 150.2");
```

