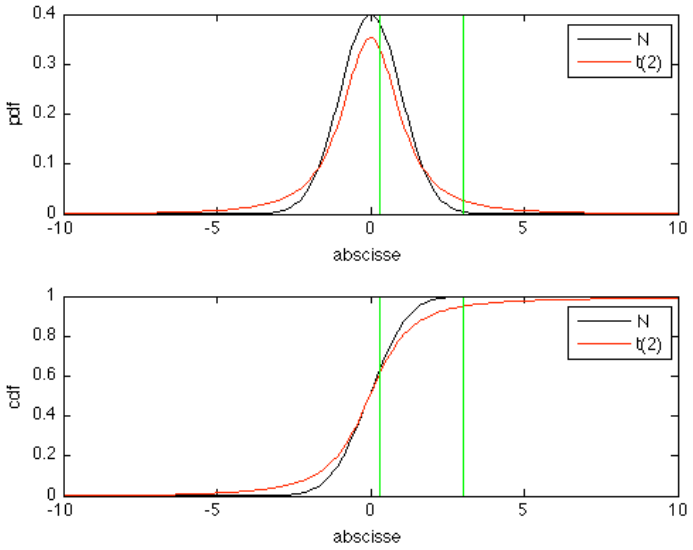
```
clear all
close all
clc

aa=load('distributions.txt');

x=aa(:,1);
dx=x(2)-x(1);
pdf1=aa(:,2);
pdf2=aa(:,3);

figure
subplot(2,1,1)
plot(x,pdf1,'k')
hold on
plot(x,pdf2,'r')
hold off
xlabel('abscisse') ; ylabel('pdf')
legend('N','t(2)')
line([0.3 0.3],[0 0.4],'Color','g')
line([3 3],[0 0.4],'Color','g')

cdf1=cumsum(pdf1*dx);
cdf2=cumsum(pdf2*dx);

cdf1(1)=pdf1(1)*dx;
cdf2(1)=pdf2(1)*dx;
for i=2:length(x)
    cdf1(i)=cdf1(i-1)+pdf1(i)*dx;
    cdf2(i)=cdf2(i-1)+pdf2(i)*dx;
end

subplot(2,1,2)
plot(x,cdf1,'k')
hold on
plot(x,cdf2,'r')
hold off
xlabel('abscisse') ; ylabel('cdf')
legend('N','t(2)')
line([0.3 0.3],[0 1],'Color','g')
line([3 3],[0 1],'Color','g')


p1=sum(pdf1(abs(x)<=3)*dx)
p2=sum(pdf2(abs(x)<=3)*dx)

p1=cdf1(x==3)-cdf1(x==-3)
p2=cdf2(x==3)-cdf2(x==-3)

p1=cdf1(abs(x-3)<1e-5)-cdf1(abs(x+3)<1e-5)
p2=cdf2(abs(x-3)<1e-5)-cdf2(abs(x+3)<1e-5)
```

```
p1 =

    0.9977


p2 =

    0.9072
```

exercice1

```
p1 =

    0.9973


p2 =

    0.9045


p1 =

    0.9973


p2 =

    0.9045
```



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