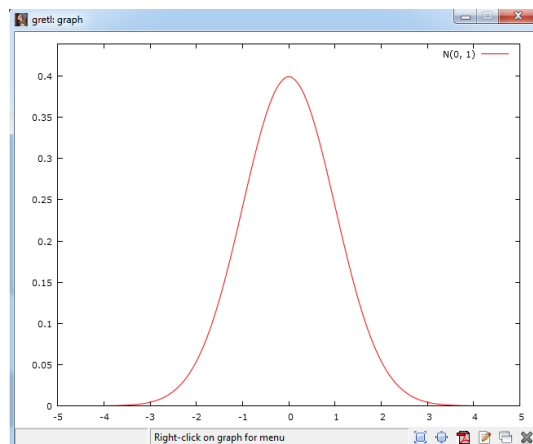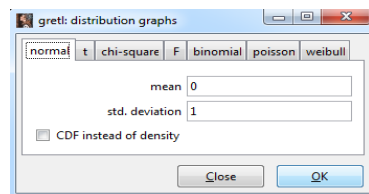# Solution to Task T6.

Plotting distributions.

To graph a distribution, click
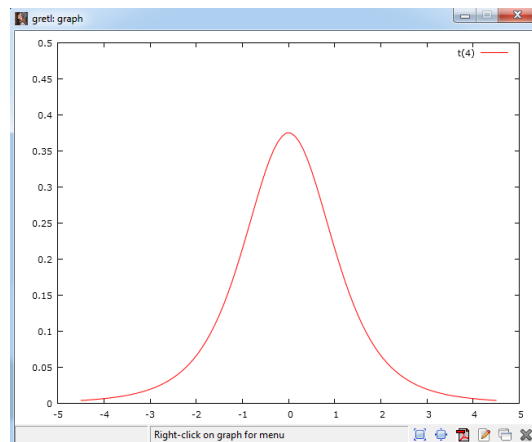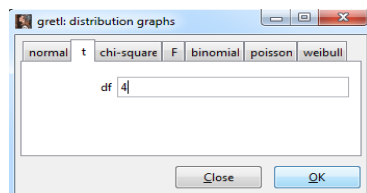
```
Tools --> Distribution graphs
```

Choose the parameters: mean and standard deviation for the normal distribution, and degrees of freedom for the χ^2 and $\mathcal{F}$ distributions.
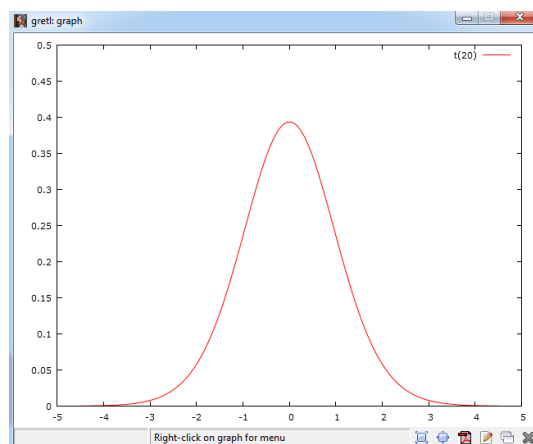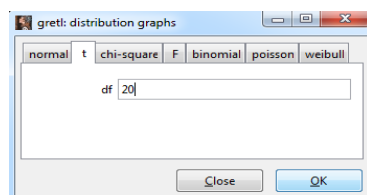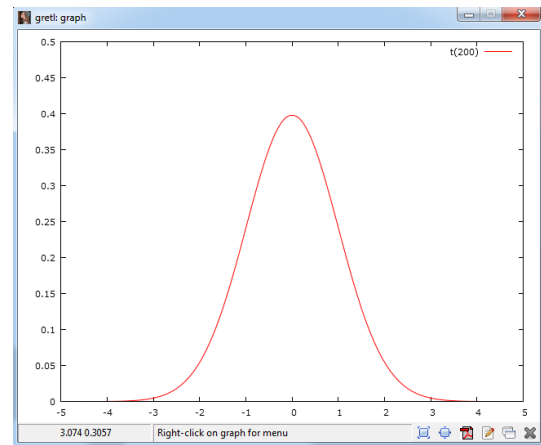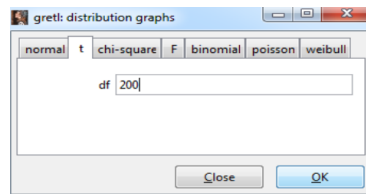
N(0,1)

$t(4)$

$t(20)$

$t(200)$

$\chi^2(1)$
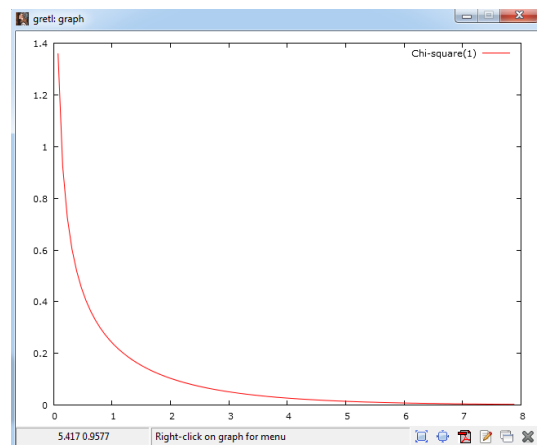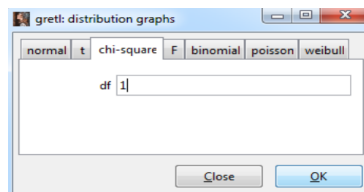
$\chi^2(3)$
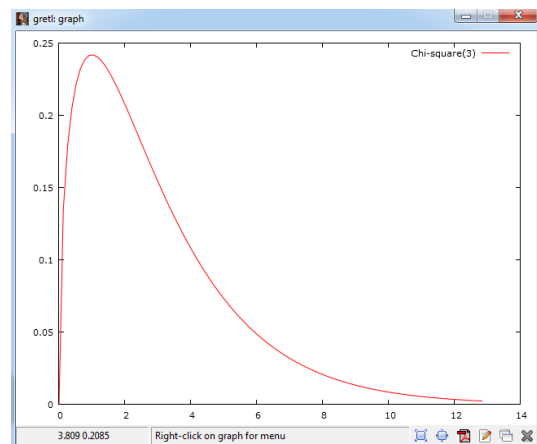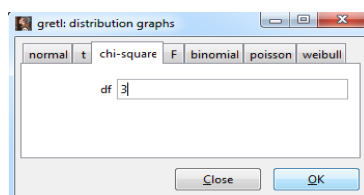
$\chi^2(40)$
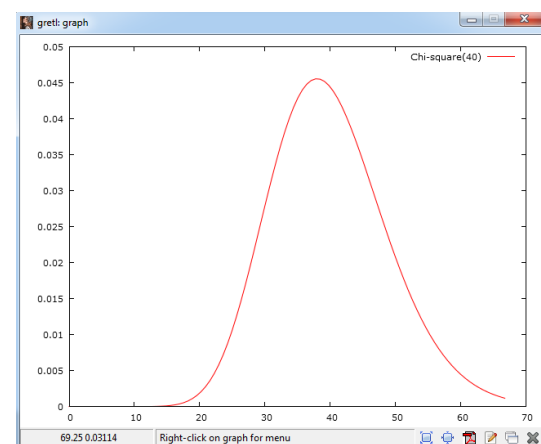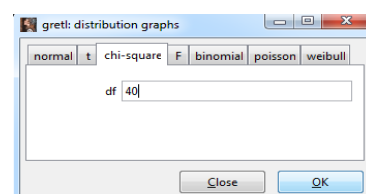
$\mathcal{F}(1, 10)$
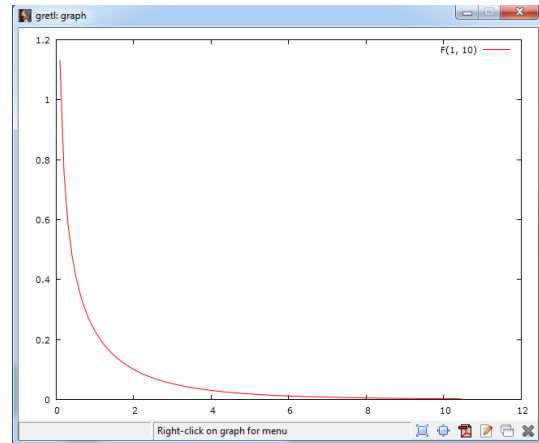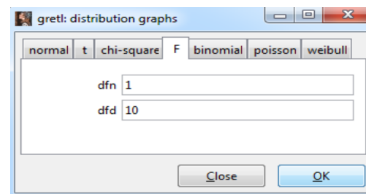
$\mathcal{F}(3, 10)$
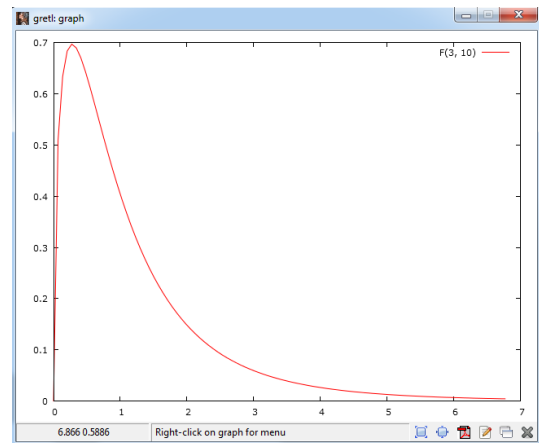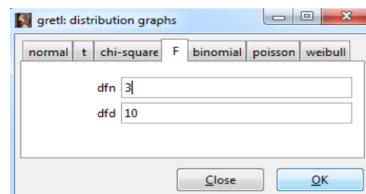
$\mathcal{F}(1, 300)$

$\mathcal{F}(3, 300)$

Some comments:

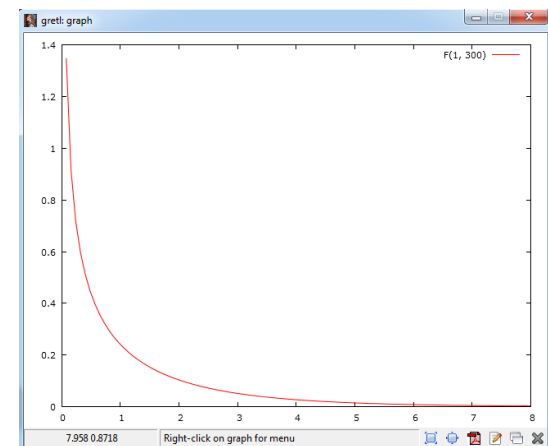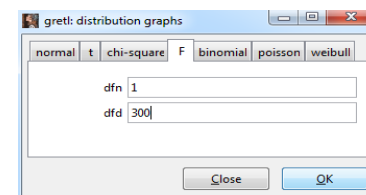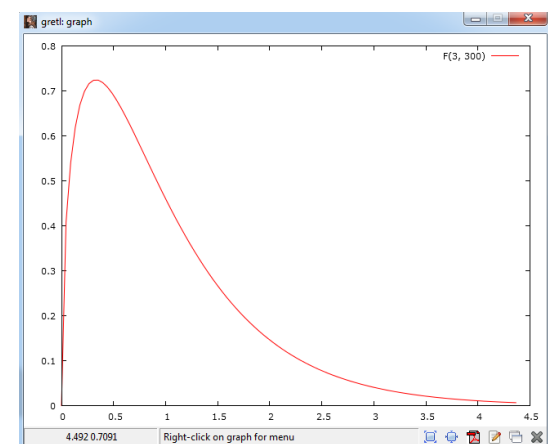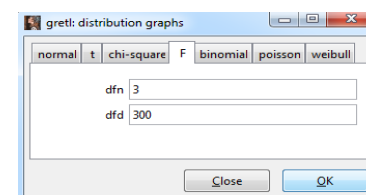a. The t distribution converges to the standard Normal when the degrees of freedom go to infinity.

b. The distribution $\mathcal{F}(a, b)$ converges to the $\chi^2(a)$ distribution when the degrees of freedom b go to infinity.