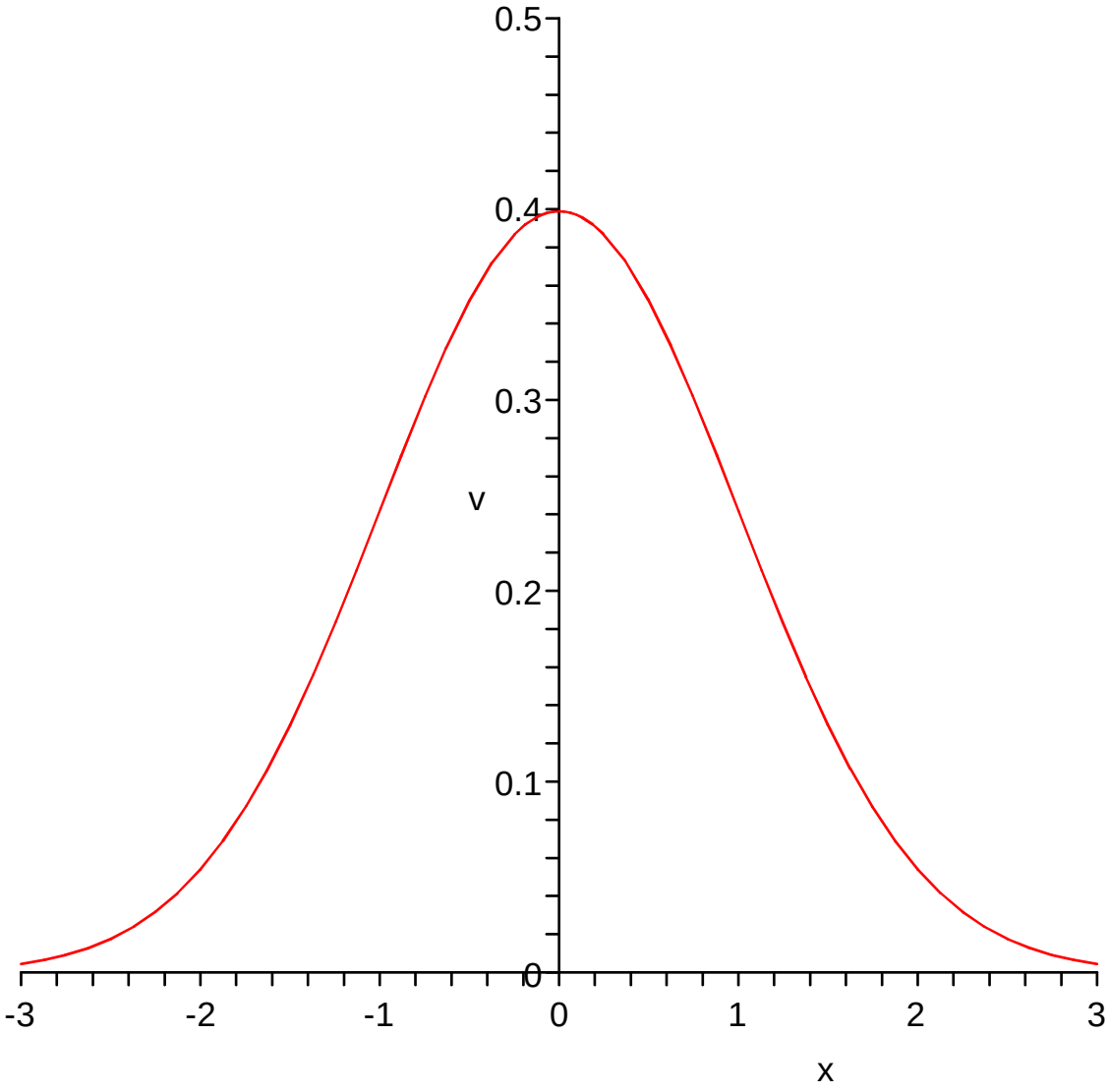
USING MAPLE TO INVESTIGATE DISTRIBUTIONS

```
> with(stats[statevalf,pdf]):
> fX:= x -> stats[statevalf,pdf,normald](x);
                                                    ...
```

NORMAL

```
> plot(fX(x),x=-3..3,v=0..0.5);
```




```
>
```

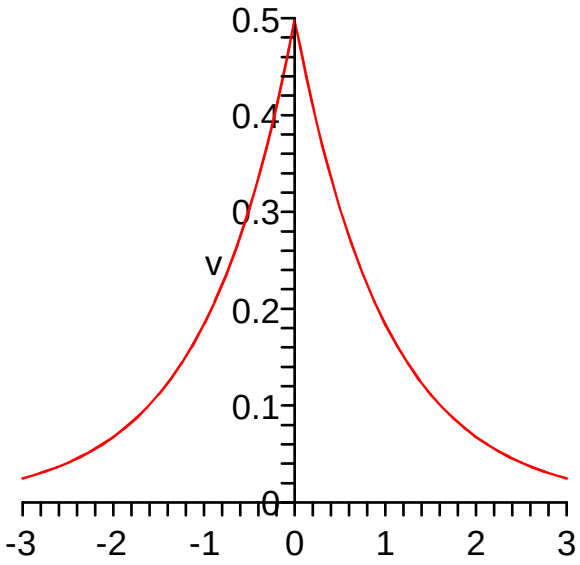
```
>
```

LAPLACE

```
> fX:= x -> stats[statevalf,pdf,laplaced[0,1]](x);
```

...

```
> plot(fX(x),x=-3..3,v=0..0.5);
```

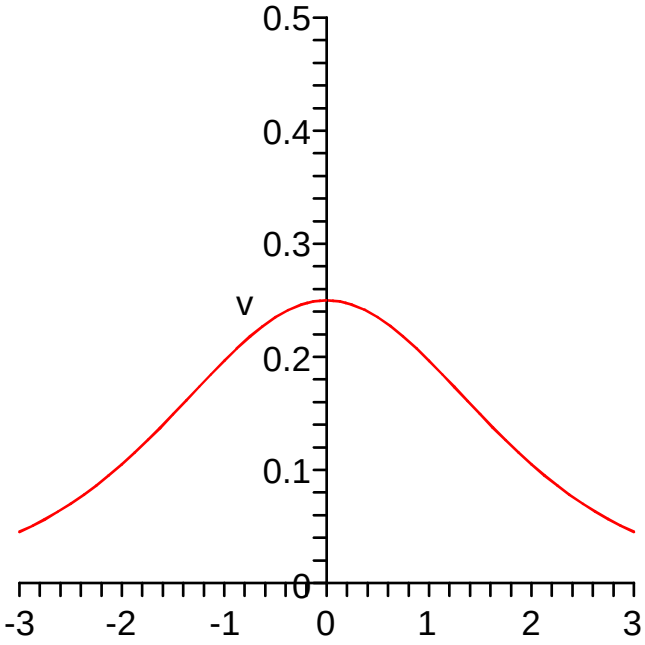


LOGISTIC

```
> fX:= x -> stats[statevalf,pdf,logistic[0,1]](x);
```

...

```
> plot(fX(x),x=-3..3,v=0..0.5);
```

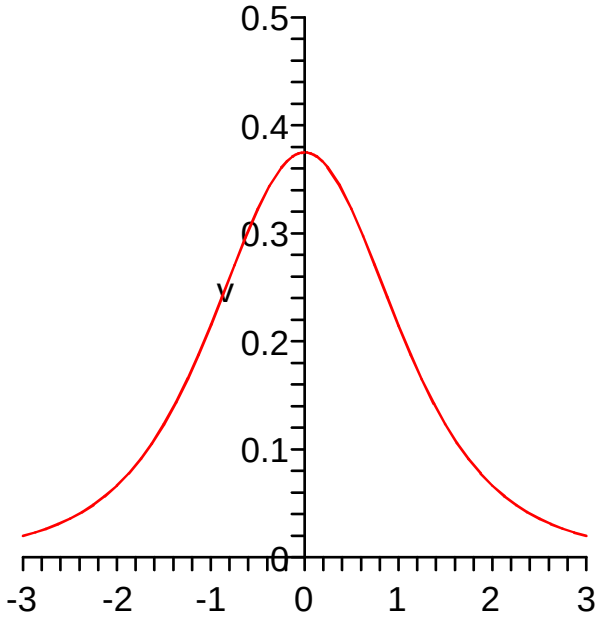


STUDENT T

```
> fX:= x -> stats[statevalf,pdf,studentst[4]](x);
```

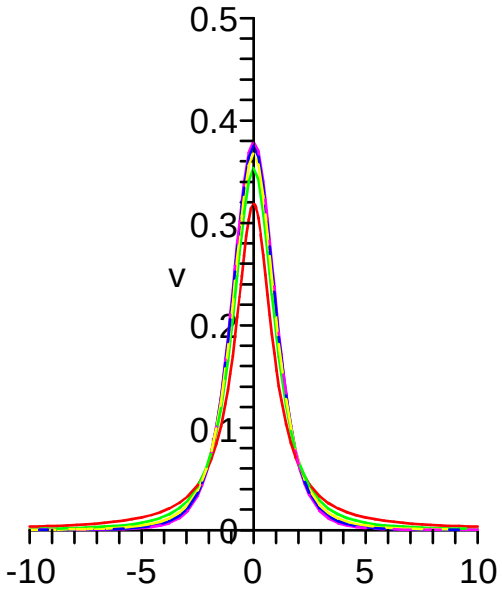
...

```
> plot(fX(x),x=-3..3,v=0..0.5);
```



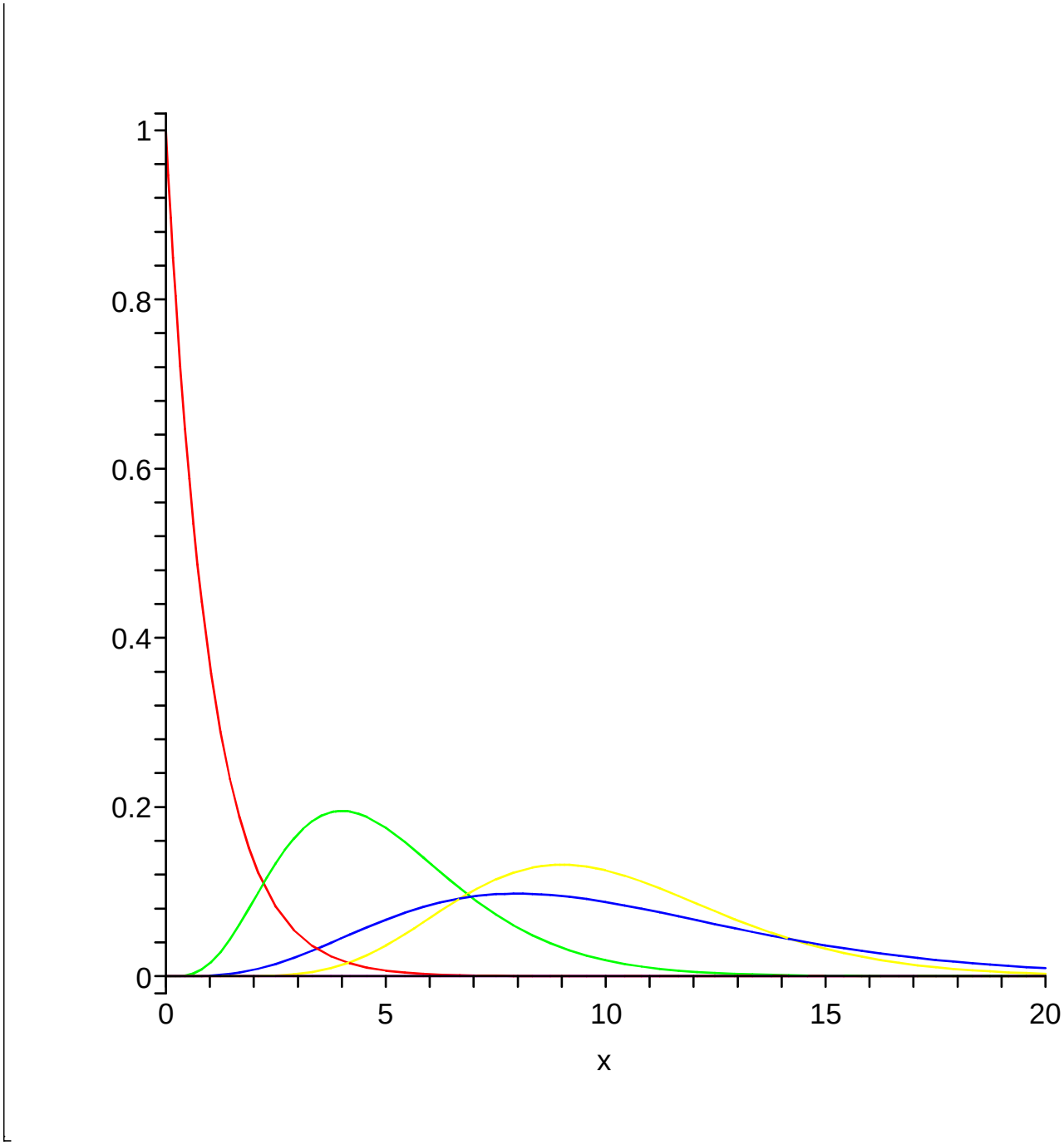

```
fX1:= x -> stats[statevalf,pdf,studentst[1]](x):
fX2:= x -> stats[statevalf,pdf,studentst[2]](x):
```

```
fX3:= x -> stats[statevalf,pdf,studentst[3]](x):
fX4:= x -> stats[statevalf,pdf,studentst[4]](x):
fX5:= x -> stats[statevalf,pdf,studentst[5]](x):
  plot([fX1(x),fX2(x),fX3(x),fX4(x),fX5(x)],x=-10..10,v=0..0.5);
>
```



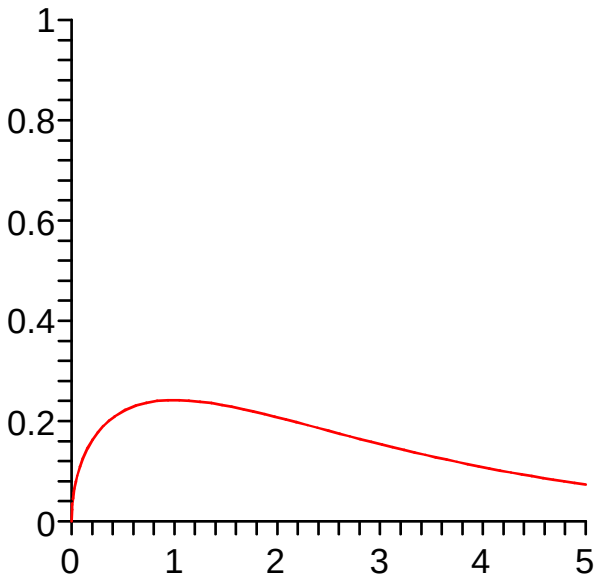
GAMMA

```
> fX1:= x -> stats[statevalf,pdf,gamma[1,1]](x):
  fX2:= x -> stats[statevalf,pdf,gamma[5,1]](x):
  fX3:= x -> stats[statevalf,pdf,gamma[10,1]](x):
  fX4:= x -> stats[statevalf,pdf,gamma[5,2]](x):
  fX5:= x -> stats[statevalf,pdf,gamma[10,10]](x):
  plot([fX1(x),fX2(x),fX3(x),fX4(x),fX5(x)],x=0..20);
>
```

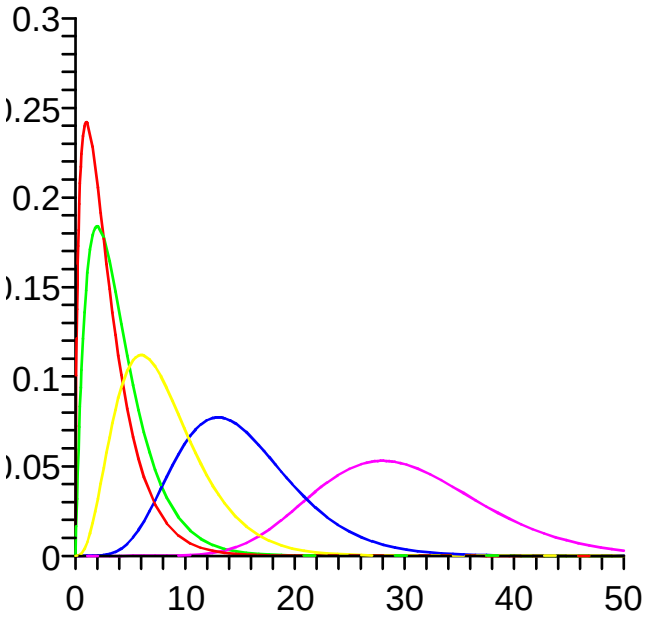

1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
x

CHISQUARED

```
> fX:= x -> stats[statevalf,pdf,chisquare[3]](x):
> plot(fX(x),x=0..5,v=0..1);
```

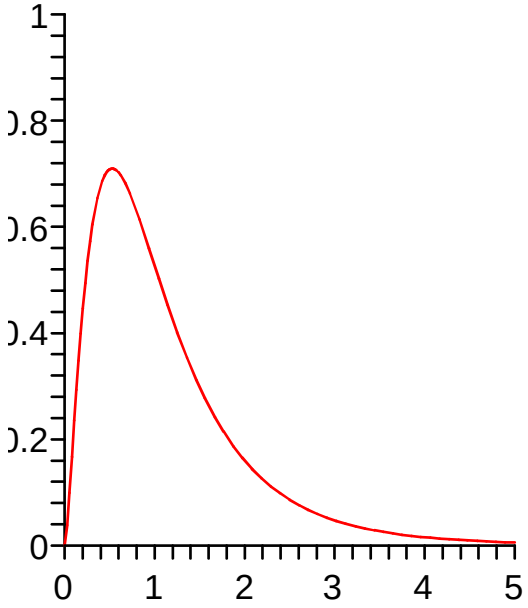



```
> fX3:= x -> stats[statevalf,pdf,chisquare[3]](x):
  fX4:= x -> stats[statevalf,pdf,chisquare[4]](x):
  fX8:= x -> stats[statevalf,pdf,chisquare[8]](x):
  fX15:= x -> stats[statevalf,pdf,chisquare[15]](x):
  fX30:= x -> stats[statevalf,pdf,chisquare[30]](x):
  plot([fX3(x),fX4(x),fX8(x),fX15(x),fX30(x)],x=0..50,v=0..0.3);
>
>
```



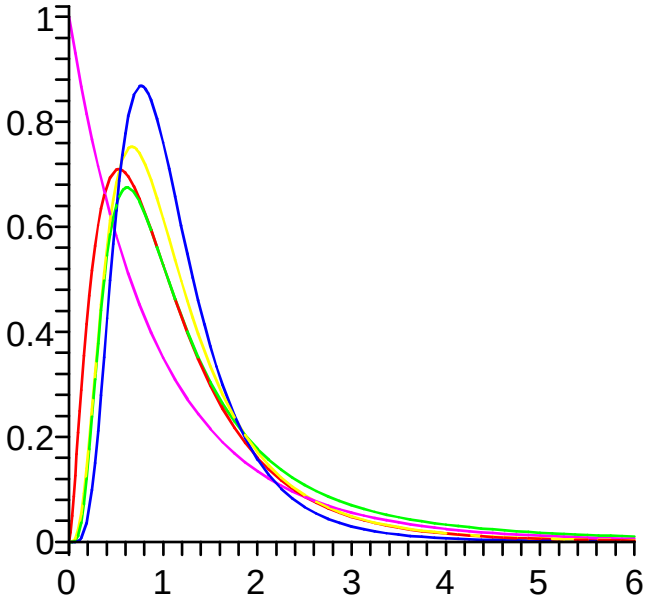
FISHER-F

```
> fX:= x -> stats[statevalf,pdf,fratio[5,15]](x):
> plot(fX(x),x=0..5,v=0..1);
```




```
> fX1:= x -> stats[statevalf,pdf,fratio[5,15]](x):
  fX2:= x -> stats[statevalf,pdf,fratio[15,5]](x):
  fX3:= x -> stats[statevalf,pdf,fratio[10,10]](x):
  fX4:= x -> stats[statevalf,pdf,fratio[15,15]](x):
  fX5:= x -> stats[statevalf,pdf,fratio[2,20]](x):
```

```
> plot([fX1(x),fX2(x),fX3(x),fX4(x),fX5(x)],x=0..6);
```




```
>
>
```