Computing in Epidemiology and biostatistics Homework 1
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Number 1

```
1-pf(3.2, 3, 194)
        [1] 0.02448583 # P-value of F score
x<-seq(0,10, by = 0.1)
length (x)
        [1] 101
ypdf<-df(x, df1 = 3, df2 = 194)
plot (x, ypdf,type = 'l')
```

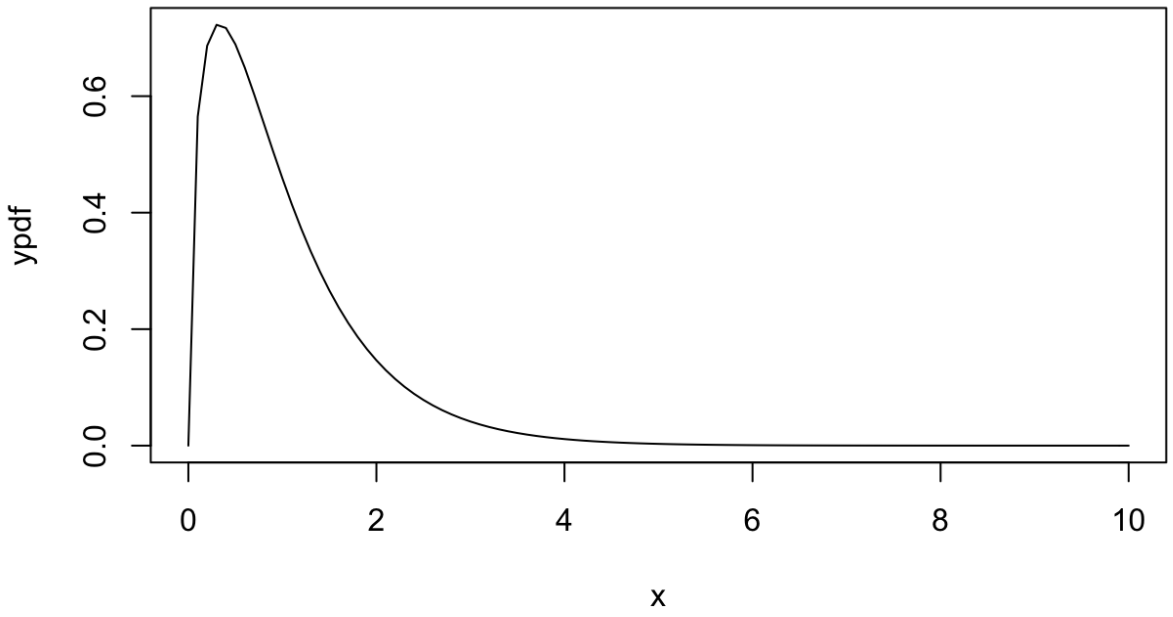

Diagram showing the probability density function of the F distribution.

```
ycdf<-pf(x, df1 = 3, df2 = 194)
plot(x, ycdf, type = 'l')
```

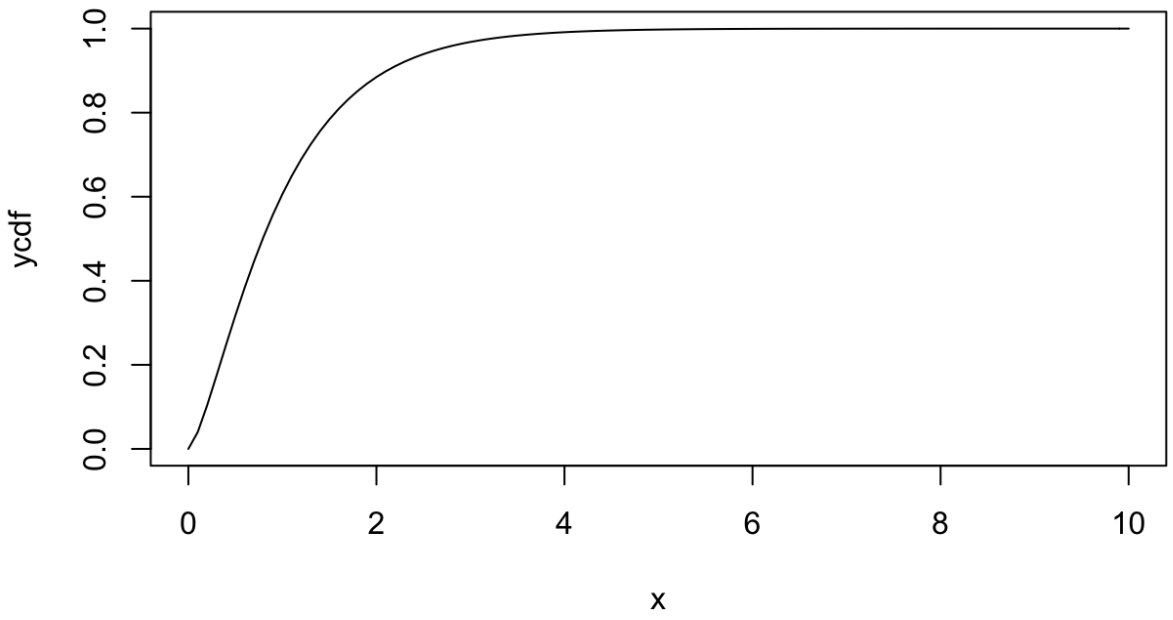

Diagram showing the cumulative distribution function of the F distribution

Number 2

2*pt(q=-2.08, df=136, lower.tail=FALSE)

[1] 1.960597 *# p-value of t distribution with t score of -2.08*

2*pt(q=2.45, df=136, lower.tail=FALSE)

[1] 0.01555642 *# p-value of t distribution with t score of 2.45*

x<-seq(0,10, by = 0.1)
curve(dt(x, df=136), from=-3, to=3)

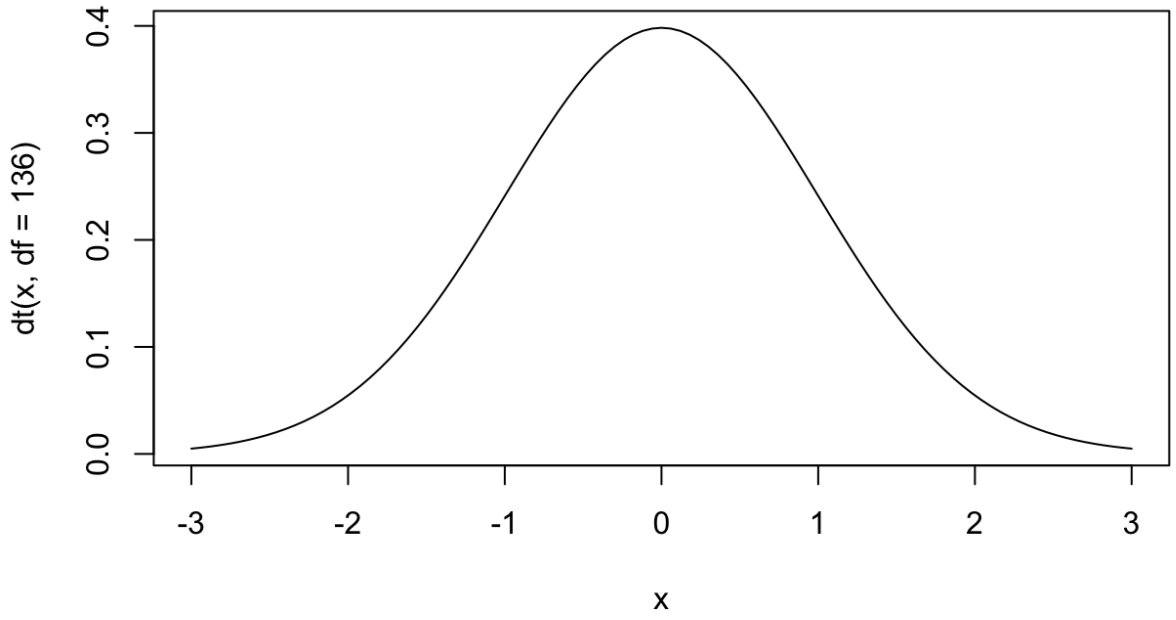

Diagram showing the probability density function of the t distribution.

curve(pt(x, df=136), from=-3, to=3)

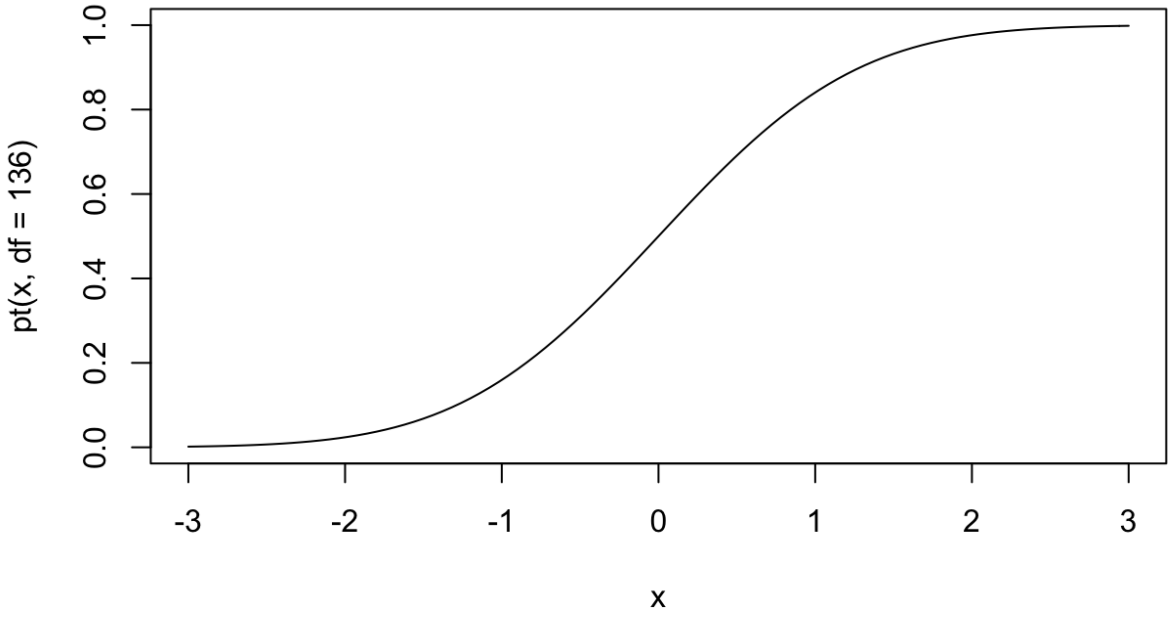

Diagram showing the cumulative distribution function of the t distribution.