tdirac

Srini

2023-08-19

```
../../bin/tdirac tdirac.csv
../../bin/freqd tdirac.csv
```

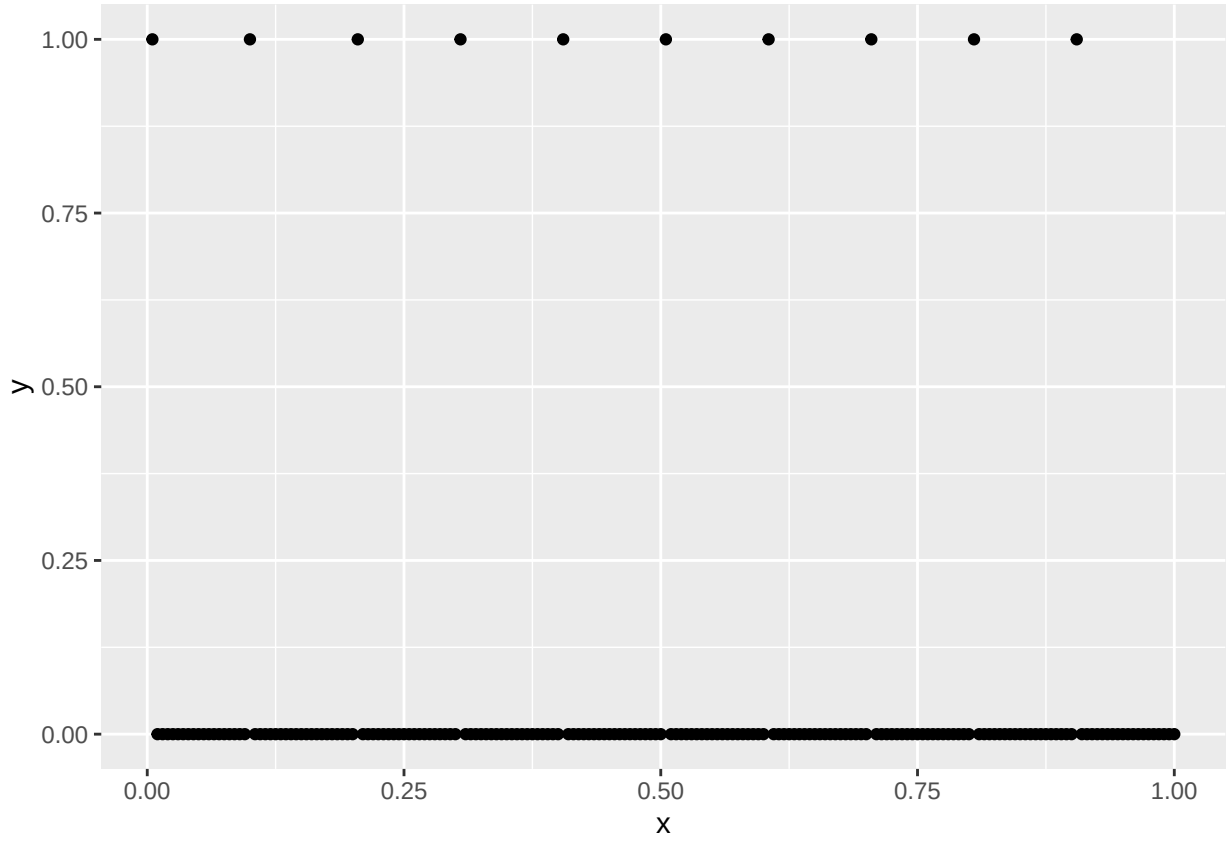
```
##  0.00000E+00 9.99999E-01
## tdirac.csv
```

Load the table of values and plot

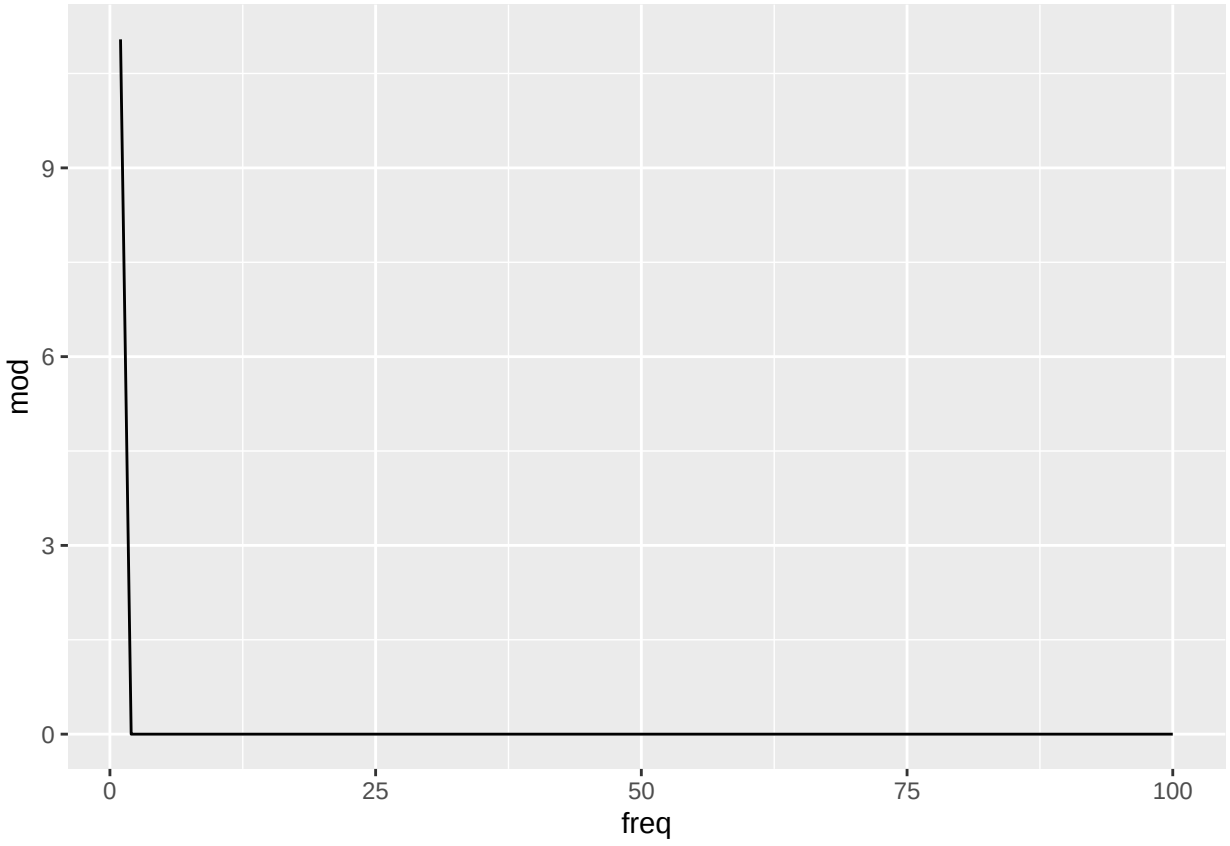
```
library(dplyr)
```

```
##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##     filter, lag

## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

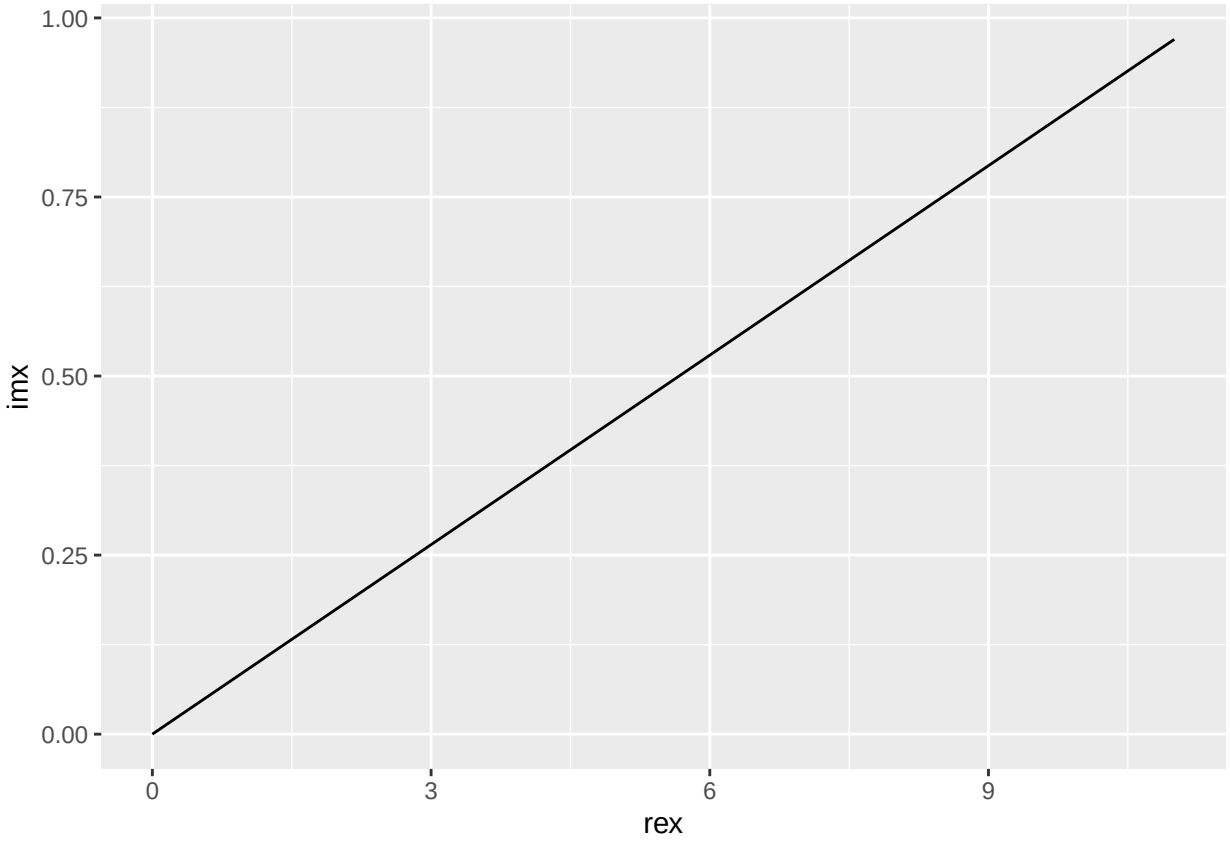
```
library(ggplot2)

values<-read.csv("tdirac.csv")
names(values)<-c("x","y")
ggplot(values,aes(x=x,y=y))+geom_point()
```



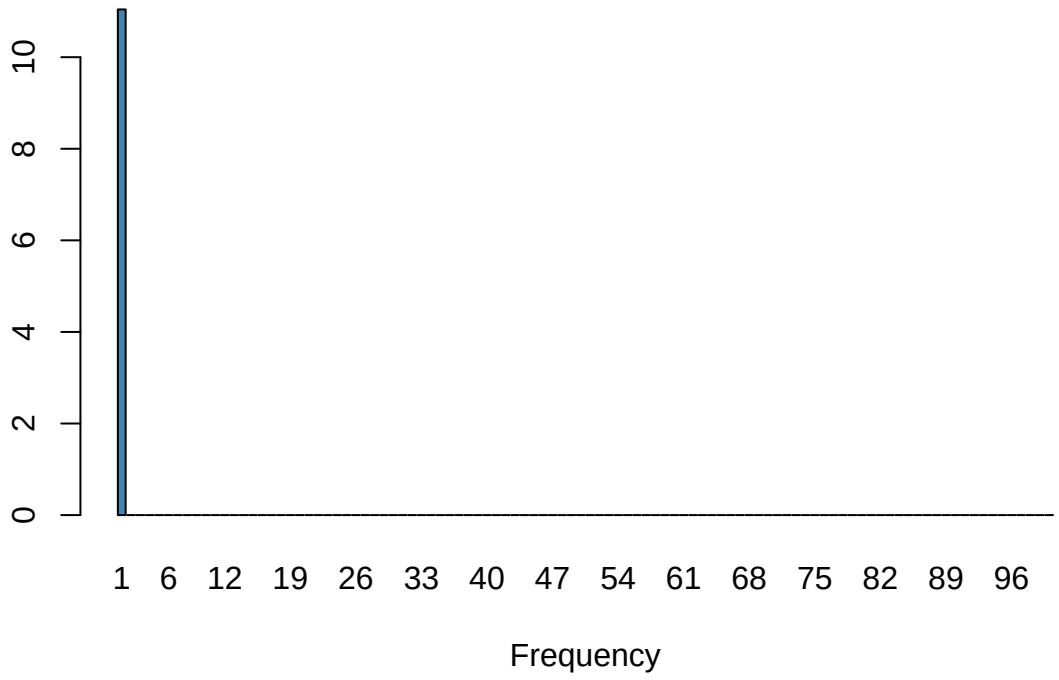

```
signalfft<-read.csv("tdirac.csv.csv",header=FALSE,sep=",")
names(signalfft)<-c("freq","rex","imx","mod","arg")
ggplot(signalfft,aes(x=freq,y=mod))+geom_line()
```



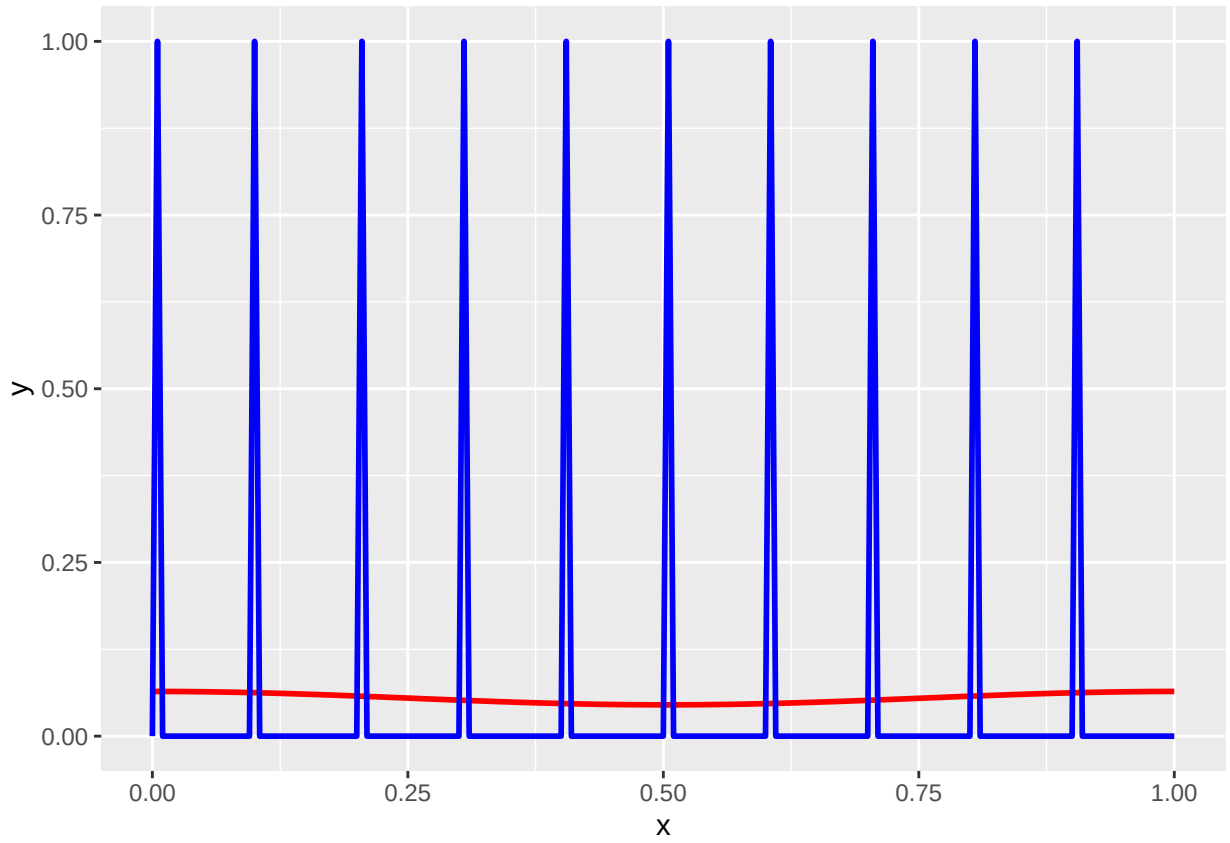

```
ggplot(signalfft,aes(x=rex,y=imx))+geom_line()
```




```
dominant<-signalfft %>% slice_head(n=10)
barplot(signalfft$mod,col="steelblue",names.arg=signalfft$freq,xlab="Frequency")
```




```
signalre<-read.csv("tdirac.csv_re.csv",header=FALSE,sep=",")
names(signalre) <- c("x","y")
signalre <- signalre %>% mutate(yorig=c(0,values$y))
ggplot(signalre,aes(x=x,y=y))+
      geom_line(colour="red",linewidth=1)+
      geom_line(aes(y=yorig),color="blue",linewidth=1)+
      theme(legend.position = "bottom")
```


1.00
0.75
0.50
0.25
0.00
y
0.00
0.25
0.50
0.75
1.00
x