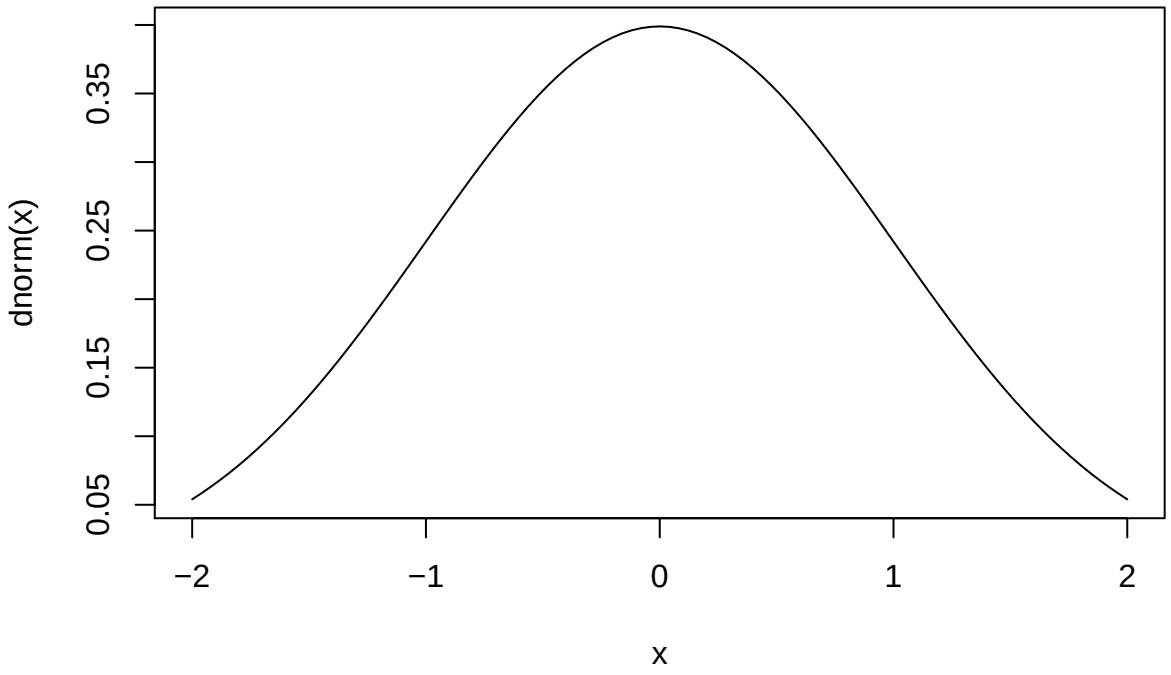
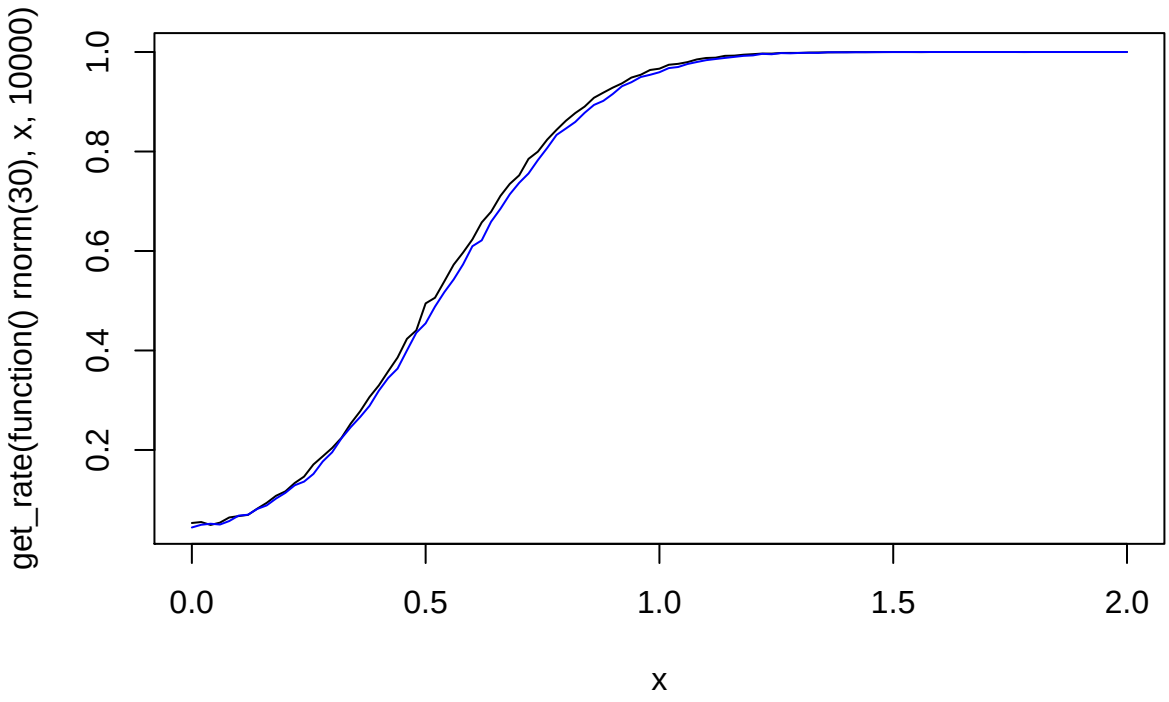
t.test vs wilcox.test

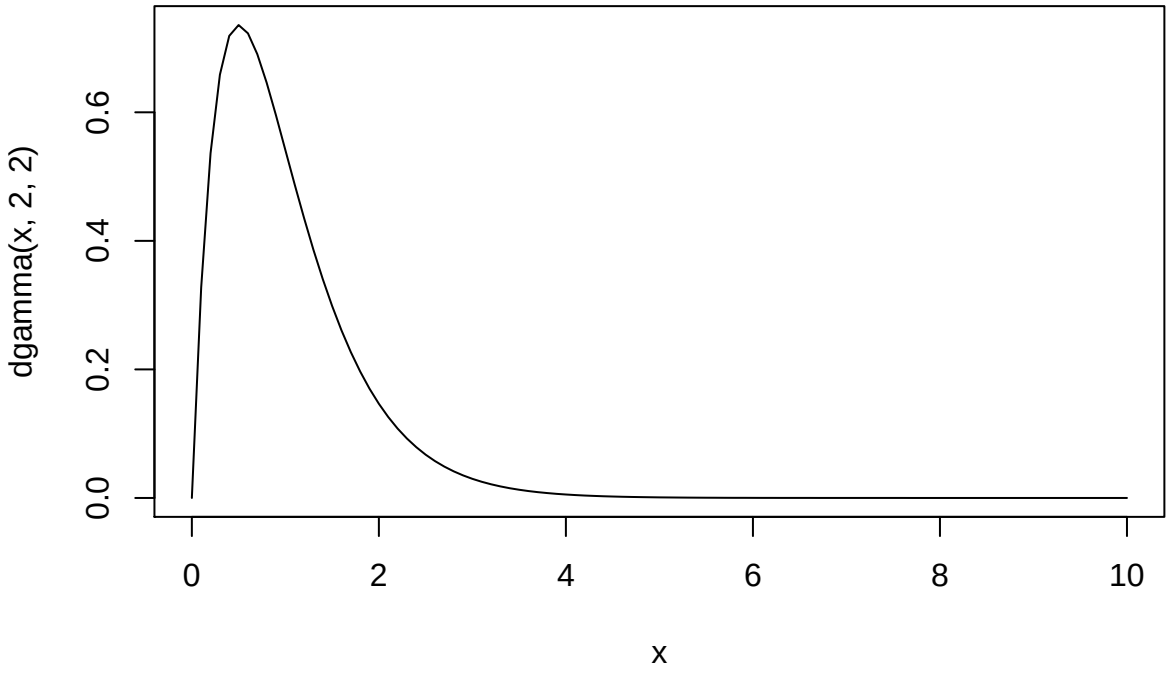
```
get_rate <- function(sampler,offset,n,test=t.test){
  r <- c()
    for(j in c(1:length(offset))){
      m<-c()
      for(i in c(1:n)){
      x<-sampler()
      y<-sampler()+offset[j]
      m[i] <- test(x,y)$p.value < 0.05
    }
    r[j] <- mean(m)
  }
  r
}
curve(dnorm(x),-2,2)
```



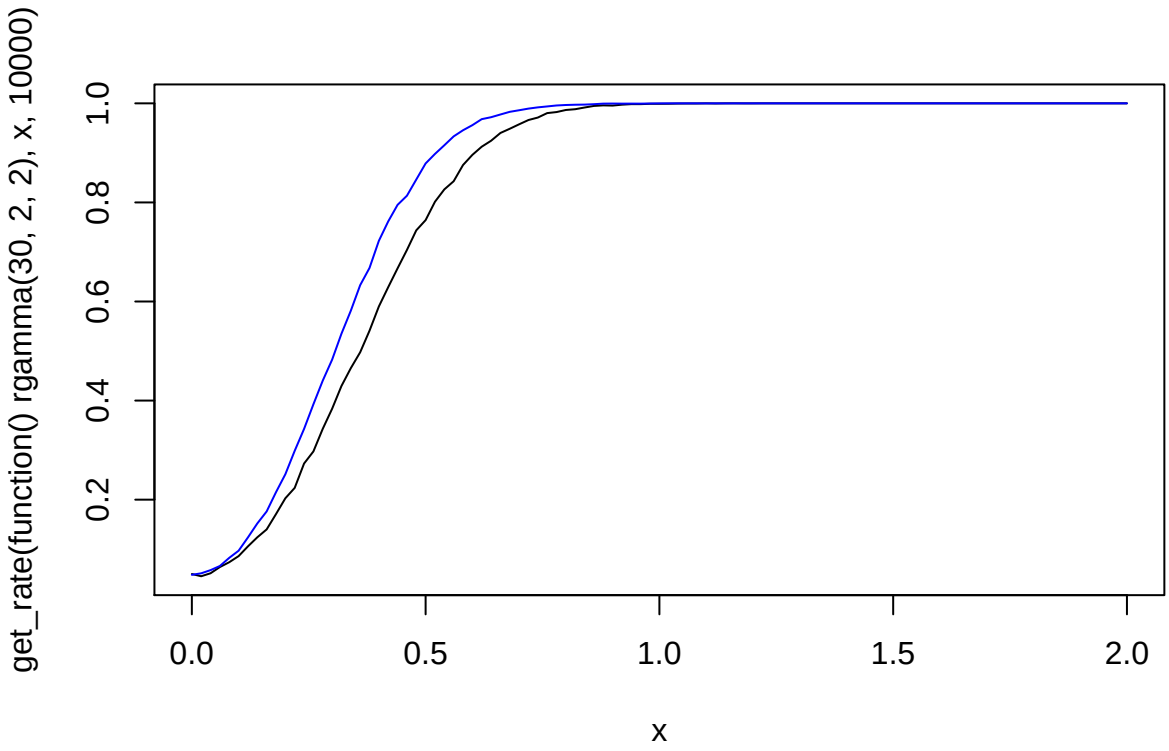

```
curve(get_rate(function() rnorm(30),x,10000),0,2)
curve(get_rate(function() rnorm(30),x,10000,wilcox.test),0,2,add=T,col='blue')
```



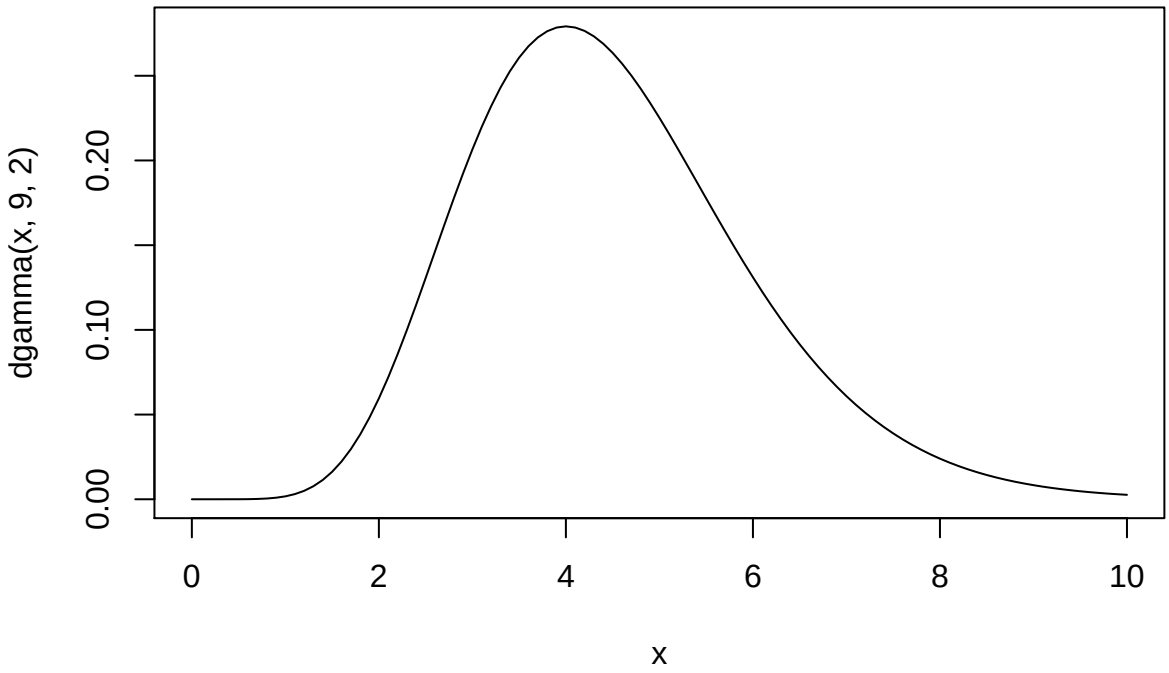

```
curve(dgamma(x,2,2),0,10)
```



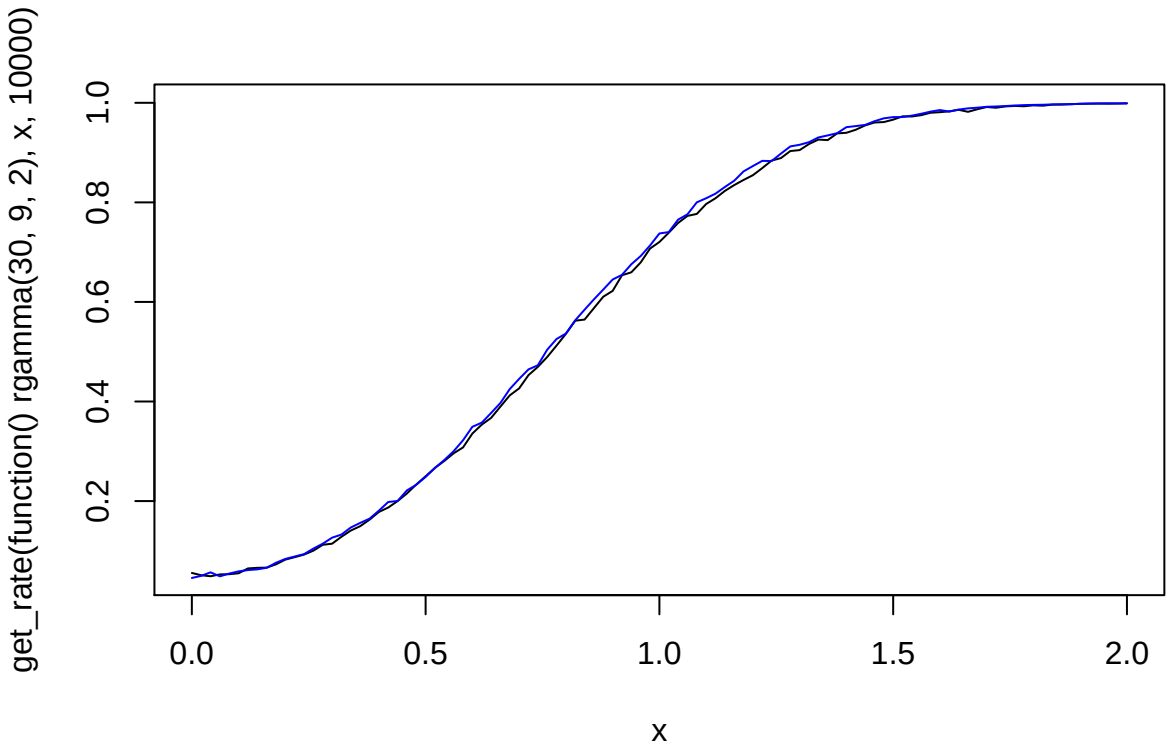

```
curve(get_rate(function() rgamma(30,2,2),x,10000),0,2)
curve(get_rate(function() rgamma(30,2,2),x,10000,wilcox.test),0,2,add=T,col='blue')
```



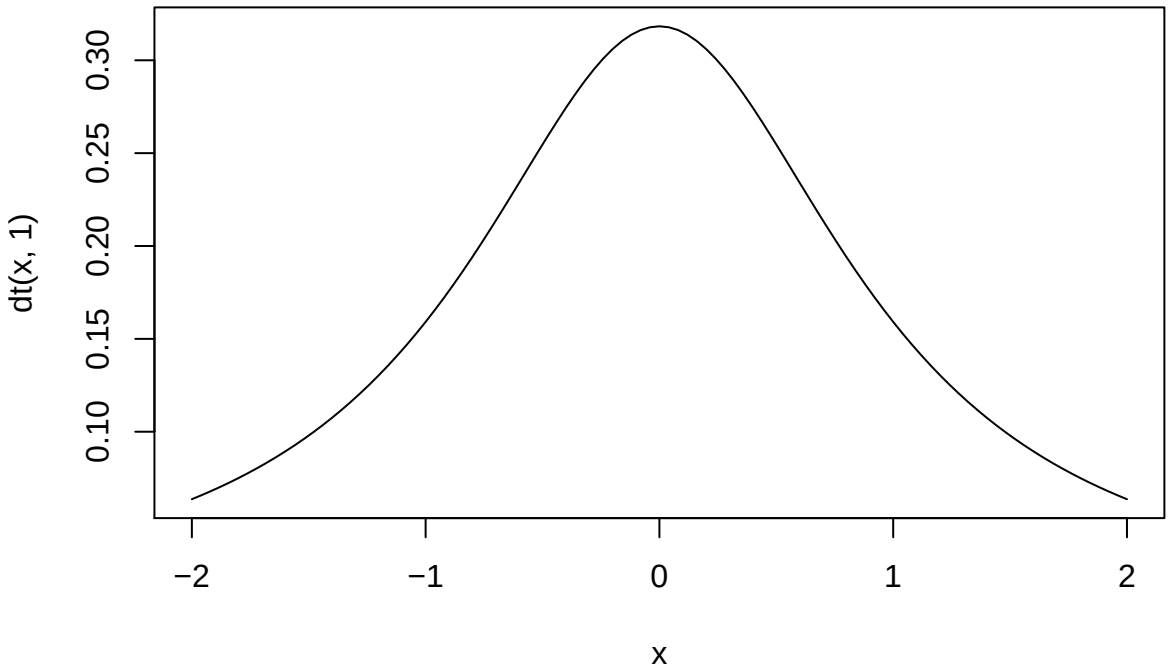

```
curve(dgamma(x,9,2),0,10)
```



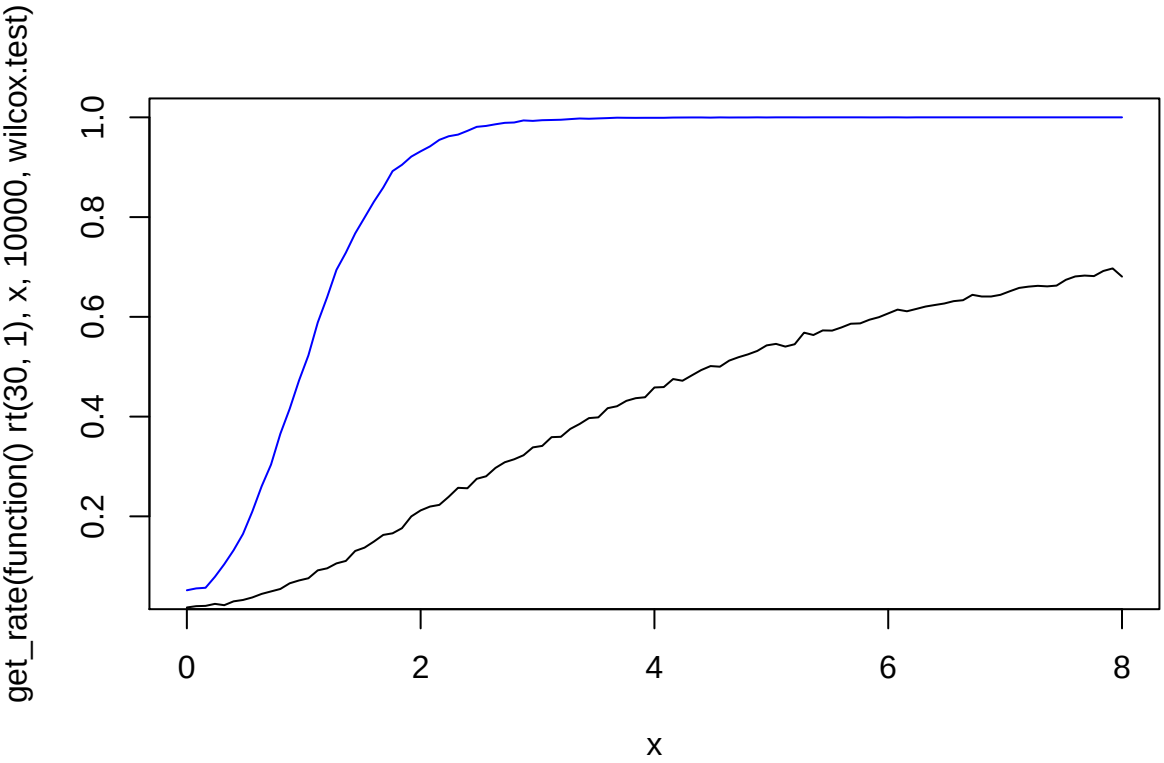

```
curve(get_rate(function() rgamma(30,9,2),x,10000),0,2)
curve(get_rate(function() rgamma(30,9,2),x,10000,wilcox.test),0,2,add=T,col='blue')
```




```
curve(dt(x,1),-2,2)
```




```
curve(get_rate(function() rt(30,1),x,10000,wilcox.test),0,8,col='blue')
curve(get_rate(function() rt(30,1),x,10000),0,8,add=T)
```


get_rate(function() rt(30, 1), x, 10000, wilcox.test)
0.2
0.4
0.6
0.8
1.0
0
2
4
6
8
x