Assignment 5

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```
###Question1
#(a)
p=punif(45,0,60,lower.tail=FALSE)
print(p)
```

```
## [1] 0.25
```

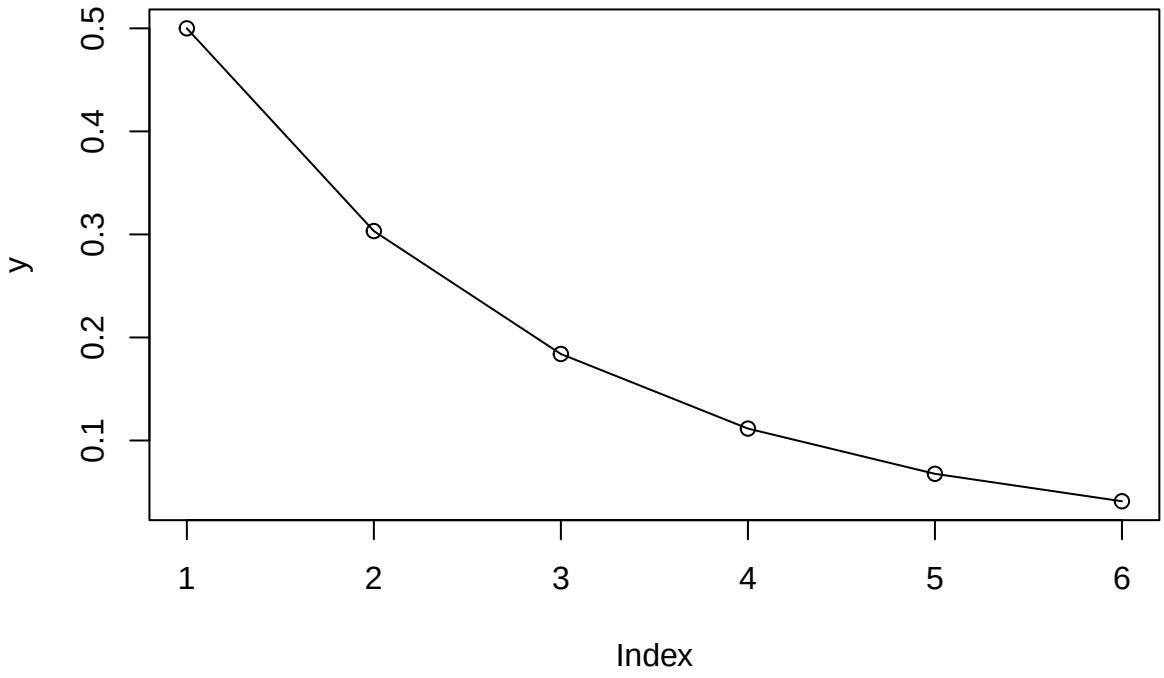
```
#(b)
q=punif(30,0,60,lower.tail=TRUE)-punif(20,0,60,lower.tail=TRUE)
print(q)
```

```
## [1] 0.1666667
```

```
###Question2
#(a)
a=dexp(3,1/2)
print(a)
```

```
## [1] 0.1115651
```

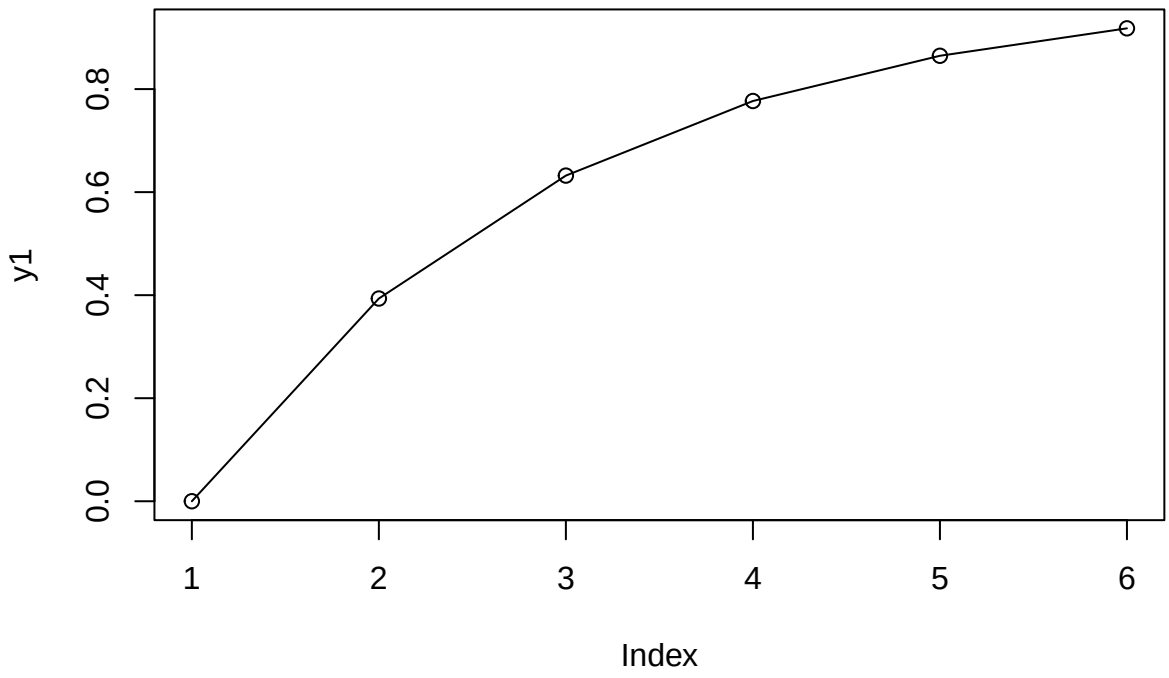
```
#(b)
x<-c(0,1,2,3,4,5)
y<-dexp(x,1/2)
plot(y,type='o')
```



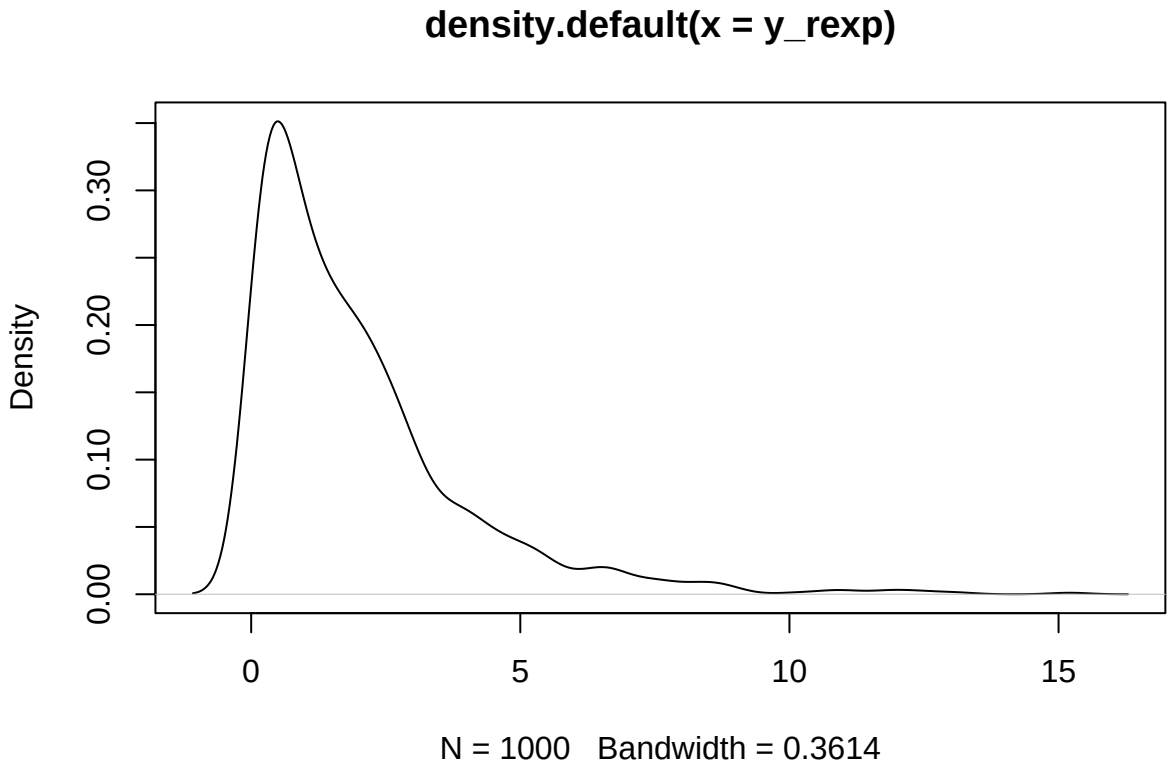

```
#(c)
x2<-pexp(3,1/2,lower.tail = TRUE)
print(x2)
```

```
## [1] 0.7768698
```

```
#(d)
y1<- pexp(x,1/2)
plot(y1,type='o')
```




```
#(e)
y_rexp <-rexp(1000,1/2)
plot(density(y_rexp ))
```




```
###Question3
#a(1)
dgamma(3,shape = 2,scale = 1/3)
```

```
## [1] 0.003332065
```

```
#a(2)
pgamma(1,shape = 2,scale = 1/3,lower.tail = FALSE)
```

```
## [1] 0.1991483
```

```
#b
qgamma(0.7,shape =2,scale = 1/3)
```

```
## [1] 0.8130722
```