

```

1 setwd("C:\\Users\\Tharusha\\Desktop\\PS_Lab_06")
2
3 #Question 01
4 #i
5
6 #Its a Binomial distribution
7
8 #ii
9 n <- 50;
10 p <- 0.85;
11
12 #( P(X ≥ 47) = 1 - P(X ≤ 46))
13 prob_at_least_47 <- sum(dbinom(47:50, size = n, prob = p))
14 print(paste("P(X ≥ 47):", prob_at_least_47))
15
16 #Question 02
17
18 #i
19 # X represents the number of customer calls received in one hour
20
21 #ii
22 # Poisson distribution; lamda = 12
23
24 #iii
25 lambda <- 12
26 # P(X = 15)
27 prob_15_calls <- dpois(15, lambda = lambda)
28 print(paste("P(X = 15):", prob_15_calls))
29

```

values	
lambda	12
n	50
p	0.85
prob_15_calls	0.0723911201466387
prob_at_least_47	0.0460465788923018

```
> setwd("C:\\Users\\Tharusha\\Desktop\\PS_Lab_06")
> #Question 01
> #i
>
> #Its a Binomial distribution
> #ii
> n <- 50;
> p <- 0.85;
> #( P(X ≥ 47) = 1 - P(X ≤ 46))
> prob_at_least_47 <- sum(dbinom(47:50, size = n, prob = p))
> print(paste("P(X ≥ 47):", prob_at_least_47))
[1] "P(X ≥ 47): 0.0460465788923018"
> #Question 02
>
> #i
> # X represents the number of customer calls received in one hour
>
> #ii
> # Poisson distribution; lamda = 12
> #iii
> lambda <- 12
> # P(X = 15)
> prob_15_calls <- dpois(15, lambda = lambda)
> print(paste("P(X = 15):", prob_15_calls))
[1] "P(X = 15): 0.0723911201466387"
~ |
```