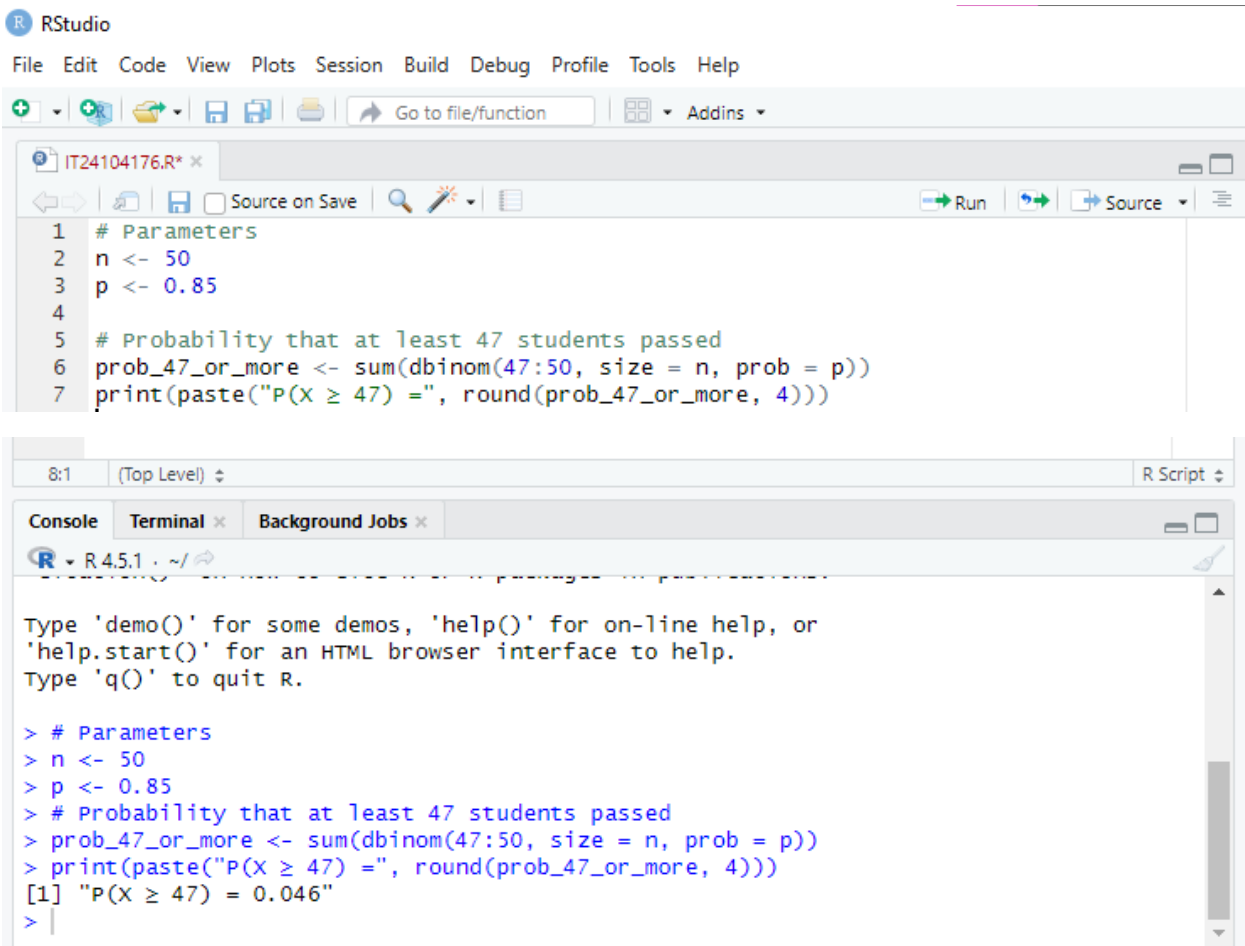


IT24104177 PS LAB6

1.



The screenshot shows the RStudio interface. The script editor at the top contains the following R code:

```
1 # Parameters
2 n <- 50
3 p <- 0.85
4
5 # Probability that at least 47 students passed
6 prob_47_or_more <- sum(dbinom(47:50, size = n, prob = p))
7 print(paste("P(X ≥ 47) =", round(prob_47_or_more, 4)))
```

The console at the bottom shows the execution of this code:

```
R > R 4.5.1 ~ /
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> # Parameters
> n <- 50
> p <- 0.85
> # Probability that at least 47 students passed
> prob_47_or_more <- sum(dbinom(47:50, size = n, prob = p))
> print(paste("P(X ≥ 47) =", round(prob_47_or_more, 4)))
[1] "P(X ≥ 47) = 0.046"
>
```





2.

```
8
9 # Probability of exactly 15 calls
10 lambda <- 12
11 prob_15_calls <- dpois(15, lambda)
12 print(paste("P(X = 15) =", round(prob_15_calls, 4)))
13
```

```

> # Probability of exactly 15 calls
> lambda <- 12
> prob_15_calls <- dpois(15, lambda)
> print(paste("P(X = 15) =", round(prob_15_calls, 4)))
[1] "P(X = 15) = 0.0724"
\

```

Environment	History	Connections	Tutorial
  Import Dataset ▾  104 MiB ▾ 			
R ▾ Global Environment ▾ <div> <input type="text"/> </div>			
values			
lambda	12		
n	50		
p	0.85		
prob_15_calls	0.0723911201466387		
prob_47_or_more	0.0460465788923018		