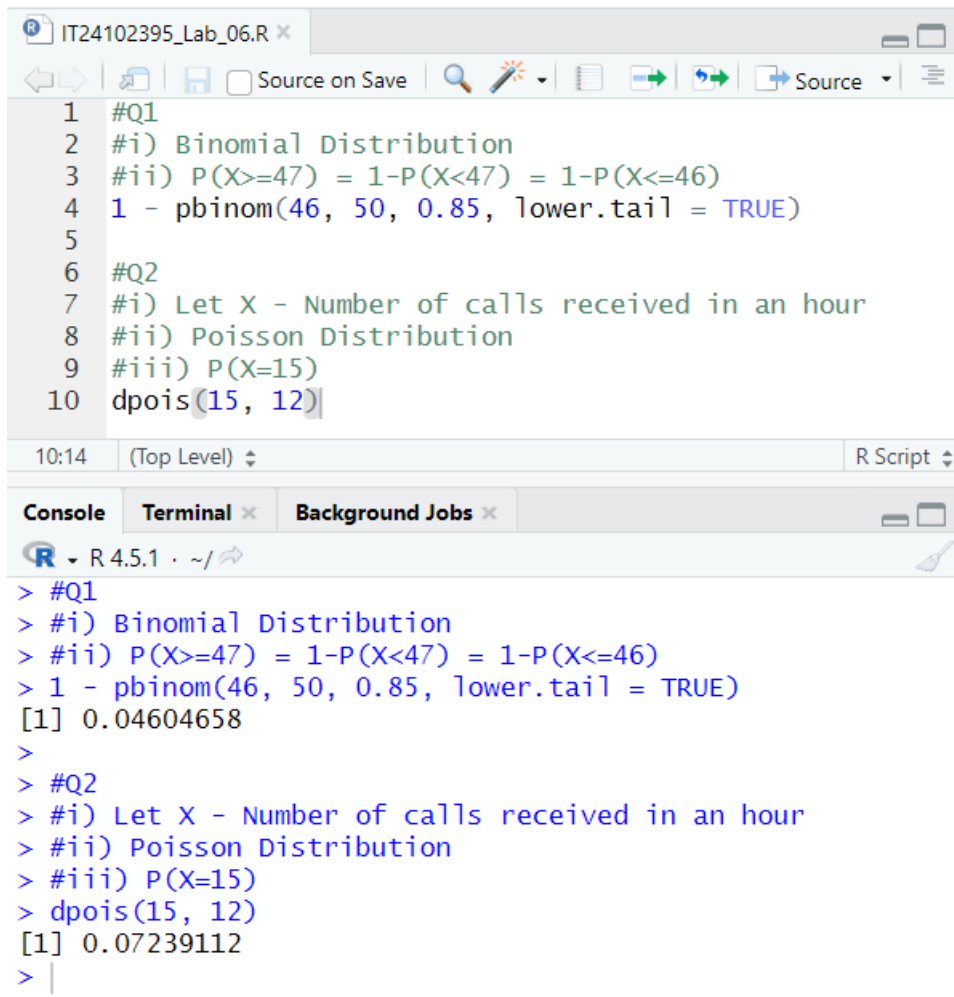


## Probability and Statistics - IT2120 | Lab Sheet 06

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The screenshot shows an R Studio interface. The top pane displays the source code for a file named 'IT24102395\_Lab\_06.R'. The code consists of 10 lines, including comments for two questions and R functions for binomial and Poisson distributions. The bottom pane shows the console output, where the first calculation results in 0.04604658 and the second in 0.07239112. The interface includes a toolbar with icons for saving, running, and other R Studio functions.

```
1 #Q1
2 #i) Binomial Distribution
3 #ii)  $P(X \geq 47) = 1 - P(X < 47) = 1 - P(X \leq 46)$ 
4 1 - pbinom(46, 50, 0.85, lower.tail = TRUE)
5
6 #Q2
7 #i) Let X - Number of calls received in an hour
8 #ii) Poisson Distribution
9 #iii)  $P(X=15)$ 
10 dpois(15, 12)
```

10:14 (Top Level) R Script

Console Terminal Background Jobs

R 4.5.1 ~/

```
> #Q1
> #i) Binomial Distribution
> #ii)  $P(X \geq 47) = 1 - P(X < 47) = 1 - P(X \leq 46)$ 
> 1 - pbinom(46, 50, 0.85, lower.tail = TRUE)
[1] 0.04604658
>
> #Q2
> #i) Let X - Number of calls received in an hour
> #ii) Poisson Distribution
> #iii)  $P(X=15)$ 
> dpois(15, 12)
[1] 0.07239112
>
```