Sri Lanka Institute of Information Technology

Lab Submission
Worksheet No 06

IT24103858

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Fundamentals of Computing | IT1140

B.Sc. (Hons) in Information Technology

File   Edit   Code   View   Plots   Session   Build   Debug   Profile   Tools   Help

PS lab 3.R ×   PS Lab 05.R ×   Lab06.R ×   Untitled1* ×   `Delivery Times` ×   Exercise...Lab.05 ×

```r
1  setwd("C:\\Users\\Piyumi Samaraweera\\Downloads\\IT24103858")
2  getwd()
3
4  # Question 1: Binomial Distribution
5  n <- 50
6  p <- 0.85
7  prob_at_least_47 <- 1 - pbinom(46, size = n, prob = p)
8  cat("1. ii. P(X ≥ 47) =", round(prob_at_least_47, 4), "\n")
9
10
11 # Question 2: Poisson Distribution
12 lambda <- 12
13 prob_exactly_15 <- dpois(15, lambda = lambda)
14 cat("2. iii. P(X = 15) =", round(prob_exactly_15, 4), "\n")
```

14:60   (Top Level)   R Script

Environment   History   Connections   Tutorial

R ▾   Global Environment ▾

Values

lambda	12
n	50
p	0.85
prob_at_least_47	0.0460465788923019
prob_exactly_15	0.0723911201466387

Files   Plots   Packages   Help   Viewer   Presentation

Console   Background Jobs

R ▾   R 4.5.0 · C:/Users/Piyumi Samaraweera/Downloads/IT24103858/

```
  Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

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.

> setwd("C:\\Users\\Piyumi Samaraweera\\Downloads\\IT24103858")
> getwd()
[1] "C:/Users/Piyumi Samaraweera/Downloads/IT24103858"
> # Question 1: Binomial Distribution
> n <- 50
> p <- 0.85
> prob_at_least_47 <- 1 - pbinom(46, size = n, prob = p)
> cat("1. ii. P(X ≥ 47) =", round(prob_at_least_47, 4), "\n")
1. ii. P(X ≥ 47) = 0.046
> # Question 2: Poisson Distribution
> lambda <- 12
> prob_exactly_15 <- dpois(15, lambda = lambda)
> cat("2. iii. P(X = 15) =", round(prob_exactly_15, 4), "\n")
2. iii. P(X = 15) = 0.0724
> |
```

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