

Sri Lanka Institute of Information Technology



Lab Submission  
Worksheet 7

**Probability & Statistics | IT2120**

B.Sc. (Hons) in Information Technology

The image shows the RStudio interface with three main panes: the Source editor at the top, the Environment pane on the right, and the Console at the bottom.

**Source Editor:** Contains the following R code:

```
1 punif(25,min=0,max=40,lower.tail=TRUE)-punif(10,min=0,max=40,lower.tail=TRUE)
2
3 pexp(2,rate=1/3,lower.tail=TRUE)
4
5 pexp(2,rate=1/3,lower.tail=TRUE)
6
7 1 - pnorm(130,mean =100,sd=15,lower.tail=TRUE)
8 pnorm(130,mean=100,sd=15,lower.tail=FALSE)
9
10 qnorm(0.95,mean=100,sd=15,lower.tail=TRUE)
11 |
```

**Environment Pane:** Shows "Environment is empty".

**Console:** Displays the R startup message and the output of the commands entered in the script:

```
R 4.5.1 ~/  
  
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.  
  
> punif(25,min=0,max=40,lower.tail=TRUE)-punif(10,min=0,max=40,lower.tail=TRUE)  
[1] 0.375  
Warning message:  
R graphics engine version 16 is not supported by this version of RStudio. The  
Plots tab will be disabled until a newer version of RStudio is installed.  
> pexp(2,rate=1/3,lower.tail=TRUE)  
[1] 0.4865829  
> pexp(2,rate=1/3,lower.tail=TRUE)  
[1] 0.4865829  
> 1 - pnorm(130,mean =100,sd=15,lower.tail=TRUE)  
[1] 0.02275013  
> pnorm(130,mean=100,sd=15,lower.tail=FALSE)  
[1] 0.02275013  
> qnorm(0.95,mean=100,sd=15,lower.tail=TRUE)  
[1] 124.6728  
> |
```